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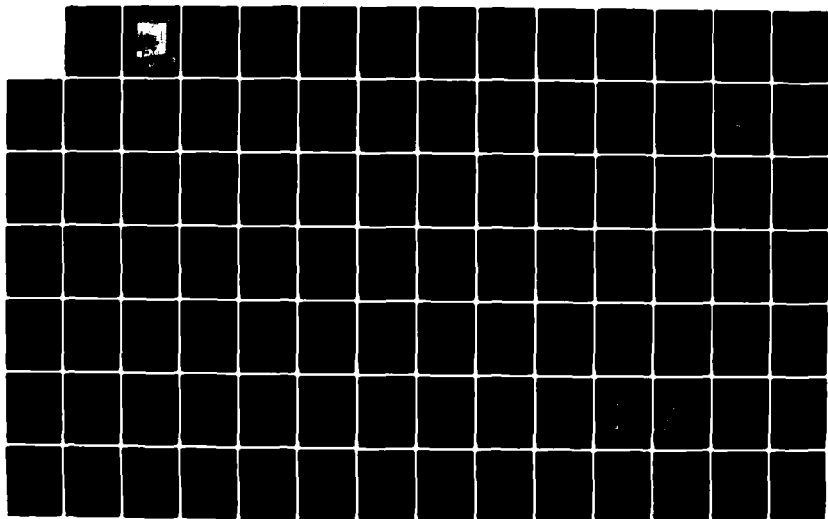
RESTORATION OF GRUBER WAGON WORKS BLUE MARSH LAKE BERKS
COUNTY PENNSYLVANIA (U) ARMY ENGINEER DISTRICT
PHILADELPHIA PA 11 AUG 78

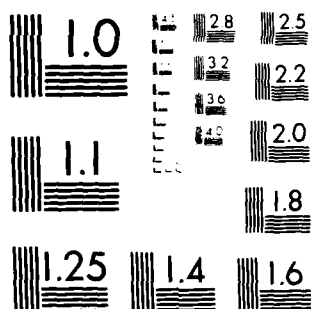
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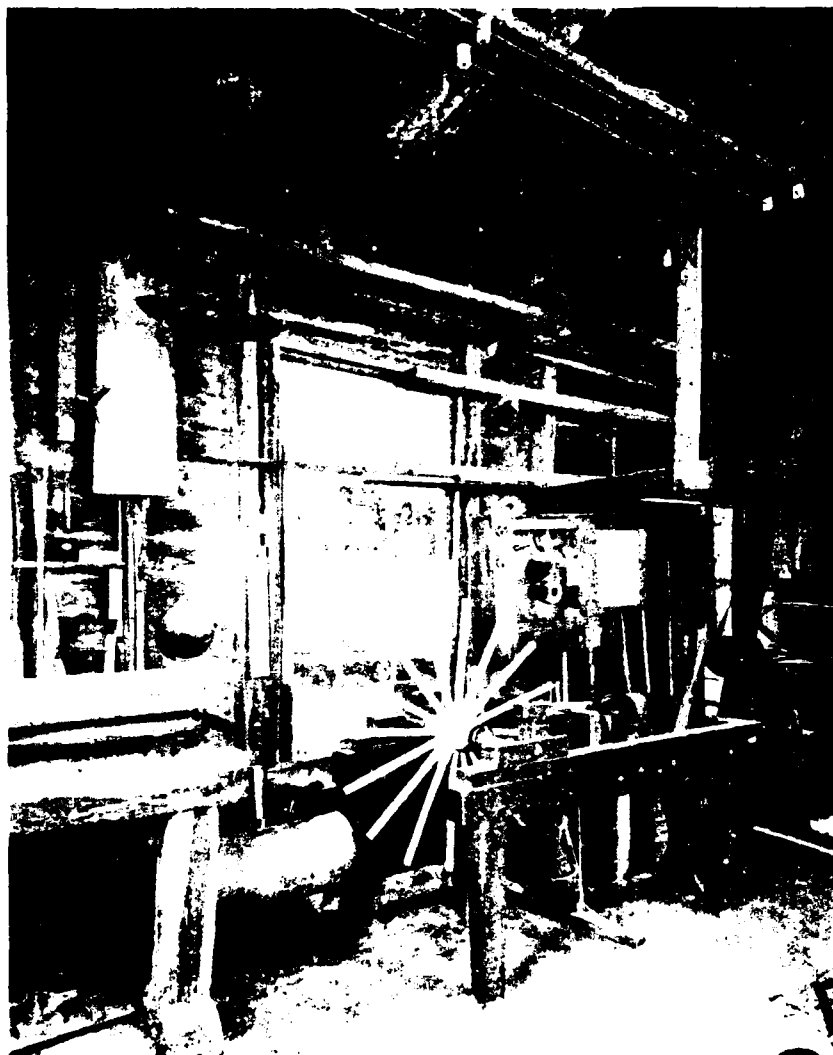
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

SPECIFICATION

RESTORATION
GRUBER WAGON WORKS

AD-A144 734

DTIC FILE COPY



AUGUST 11, 1978

U.S. ARMY ENGINEER DISTRICT
SECOND AND CHESTNUT STREETS



CORPS OF ENGINEERS
PHILADELPHIA, PENNSYLVANIA

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for public release and sale; its
distribution is unlimited.

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NOTE THE AFFIRMATIVE ACTION REQUIREMENT OF THE EQUAL OPPORTUNITY CLAUSE WHICH MAY APPLY TO THE CONTRACT RESULTING FROM THIS SOLICITATION.

NOTE THE CERTIFICATION OF NONSEGREGATED FACILITIES IN THIS SOLICITATION. Bidders, offerors and applicants are cautioned to note the "Certification of Nonsegregated Facilities" in the solicitation. Failure of a bidder or offeror to agree to the certification will render his bid or offer nonresponsive to the terms of solicitations involving awards of contracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause. (1969 JAN).

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REFERENCE

Invitation No.
DACW61-78-B-0064

DATE

11 August 1978

INVITATION FOR BIDS
(CONSTRUCTION CONTRACT)

NAME AND LOCATION OF PROJECT

Restoration of Gruber Wagon Works
Blue Marsh Lake
Berks County, Pennsylvania

DEPARTMENT OR AGENCY

Corps of Engineers, U.S. Army

BY (Issuing office)

Office of the District Engineer
U. S. Army Engineer District, Philadelphia
Room 306, Custom House, 2d & Chestnut Streets
Philadelphia, PA 19106

Scaled bids in duplicate for the work described herein will be received until

11:00 A.M. (Local time at the place of bid opening), 12 September 1978

at the office of the District Engineer, Room 306, Custom House, 2d & Chestnut Streets, Philadelphia, Pa. 19106 and at that time publicly opened. Hand carried bids must be deposited in the bid depository provided therefor in Room 306, Custom House.

Information regarding bidding material, bid guarantee, and bonds

- (1) Instruction to Bidders (Standard Form 22).
- (2) Bid Form (Standard Form 21): Invitation No. DACW61-78-B-0064
- (3) Representations and Certifications (Standard Form 19-B).
- (4) Bidding Schedule (Eng Form 1613-R).
- (5) Specifications: Invitation No. DACW61-78-B-0064
- (6) Drawings: As described in paragraph SP-3 of the specifications.
- (7) Amendments: As may be issued prior to the date of opening bids.
- (8) Bid Bonds: As required hereafter on page 2.
- (9) Payment and Performance Bonds: As required hereafter on page 2.
- (10) Construction Contract: (Standard Form 23).
- (11) General Provisions (Construction Contract).

Description of work

The work consists of furnishing all plant, equipment, labor, and materials for restoring the historic Gruber Wagon Works. The main features of restoration work are (1) removing and replacing existing temporary roof with new slate and metal roofing; (2) replacing portions of the existing CMU foundation walls with stone veneer; (3) waterproofing subgrade portions of existing CMU foundation walls; (4) miscellaneous concrete work; (5) performing extensive rough and finish carpentry work; (6) painting exterior; (7) treating for insects; (8) installing water supply and fire protection system; (9) installing intrusion system; (10) rehabilitating existing machinery drive and lighting systems; and (11) miscellaneous site work.

BIDS MUST SET FORTH FULL, ACCURATE, AND COMPLETE INFORMATION AS REQUIRED BY THIS INVITATION FOR BIDS (INCLUDING ATTACHMENTS). THE PENALTY FOR MAKING FALSE STATEMENTS IN BIDS IS PRESCRIBED IN 18 U.S.C. 1001

READ THE FOLLOWING IN CONJUNCTION WITH INSTRUCTIONS TO BIDDERS
(STANDARD FORM 22)

INVITATION FOR BIDS (Cont'd)

1. APPROPRIATIONS

The supplies and services to be obtained by this instrument are authorized by, are for the purposes set forth in, and are chargeable to the following appropriations:

96 X 3122 Construction, General, Corps of Engineers, Civil

2. BID BONDS:

Each bidder shall submit with his bid a Bid Bond (Standard Form 24) with good and sufficient surety or sureties acceptable to the Government, or other security as provided in paragraph 4 of Instructions to Bidders (Standard Form 22) in the form of twenty per cent (20%) of the bid price or \$3,000,000 whichever is lesser. The bid bond penalty may be expressed in terms of a percentage of the bid price or may be expressed in dollars and cents.

3. PERFORMANCE AND PAYMENT BONDS:

Within ten (10) days after the prescribed forms are presented to the bidder to whom award is made for signature, a written contract on the form prescribed by the specifications shall be executed and two bonds, each with good and sufficient surety or sureties acceptable to the Government, furnished; namely a Performance Bond (Standard Form 25) and a Payment Bond (Standard Form 25-A). The penal sums of such bonds will be as follows:

I. Performance Bond. The penal sum of the performance bond shall equal one hundred percent (100%) of the contract price.

II. Payment Bond.

a. When the contract price is \$1,000,000 or less, the penal sum will be fifty percent (50%) of the contract price.

b. When the contract price is in excess of \$1,000,000 but not more than \$5,000,000, the penal sum shall be forty per cent (40%) of the contract price.

c. When the contract price is more than \$5,000,000 the penal sum shall be \$2,500,000.

READ THE FOLLOWING IN CONJUNCTION WITH INSTRUCTIONS TO BIDDEES
(STANDARD FORM 22)

INVITATION FOR BIDS (Cont'd)

Any bonds furnished will be furnished by the contractor to the Government prior to commencement of contract performance.

4. MINIMUM ACCEPTANCE PERIOD (1975 MAR)

Bids allowing less than the number of calendar days specified on the reverse of SF-21 for acceptance by the Government will be rejected as non-responsive.

5. APPLICABILITY OF COMPLETE WAGE RATE DECISION:

Read the following in conjunction with the Wage Rates:

In addition to the wage rates in this solicitation, the complete decision of the Secretary of Labor contains wage rates for other classes of laborers and mechanics. Because it does not appear that the work called for by this solicitation will require the use of such other classes, the wage rates applicable to them have not been reprinted herein. However, if any such classes of laborers or mechanics actually are employed to perform work under the contract resulting from this solicitation, payment will be required as specified in the clause entitled "Davis-Bacon Act" at wage rates contained in the complete decision of the Secretary of Labor. Offerors desiring the complete decision may request it from the Contracting Officer.

6. AWARD OF CONTRACT:

Award will be made as a whole to one bidder.

7. INFORMATION ON OBTAINING DRAWINGS, SPECIFICATIONS AND BIDDING PAPERS:

Half-size sets of drawings and one copy of specifications will be furnished upon receipt of a payment of \$ 3.30. Separate half-size individual drawing sheets will be furnished at a charge of \$0.10 per sheet requested, but with a minimum charge of \$1.00. Properly interested applicants not desiring drawings will be furnished one set of specifications free of charge with additional sets obtainable at a charge of \$1.00 per set. Payments will be made by cash, check or money order and delivered to the Finance and Accounting Officer, U. S. Army Engineer District, Philadelphia. Checks and money orders should be made payable to "Treasurer of the United States."

READ THE FOLLOWING IN CONJUNCTION WITH INSTRUCTIONS TO BIDDERS
(STANDARD FORM 22)

INVITATION FOR BIDS (Cont'd)

8. INQUIRIES:

Inquiries may be submitted by writing this office or calling (collect calls cannot be accepted) or TWX 910-670-8880, to the following individuals:

Technical Information: Mr. W. H. Zink or Mr. T. B. Heverin
Telephone: 215-597-4829

Obtaining Plans, Specifications, Bidding Documents and for
Bid Results: Mrs. P. G. Mignogna, Telephone: 215-597-8679

Telephone calls will be received between the hours of
8:30 A.M. to 11:00 A.M. (Local Time)
1:00 P.M. to 4:00 P.M. (Local Time)

9. MODIFICATIONS PRIOR TO DATE SET FOR OPENING BIDS:

The right is reserved, as the interest of the Government may require, to revise or amend the specifications or drawings or both prior to the date set for opening bids. Such revisions and amendments, if any, will be announced by an amendment or amendments to this Invitation for Bids. If the revisions and amendments are of a nature which require material changes in quantities or prices bid or both, the date set for opening of the issuing officer will enable bidders to revise their bids. In such cases, the amendment will include an announcement of the new date for opening bids.

10. NOTICE OF REVISION:

Paragraphs 7 and 8 of INSTRUCTIONS TO BIDDERS (Standard Form 22) are deleted and the following is substituted therefor:

"7. Late Bids, Modifications of Bids or Withdrawal of Bids. (1977 Apr)

(a) Any bid received at the office designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before award is made and either:

(1) it was sent by registered or certified mail not later than the fifth calendar day prior to the date specified for the receipt of bids (e.g., a bid submitted in response to a solicitation requiring receipt of bids by the 20th of the month must have been mailed by the 15th or earlier); or,

READ THE FOLLOWING IN CONJUNCTION WITH INSTRUCTIONS TO BIDDERS
(STANDARD FORM 22)

INVITATION FOR BIDS (Cont'd)

(ii) It was sent by mail (or telegram if authorized) and it is determined by the Government that the late receipt was due solely to mis-handling by the Government after receipt at the Government installation.

(b) Any modification or withdrawal of bid is subject to the same conditions as in (a) above except that withdrawal of bids by telegram is authorized. A bid may also be withdrawn in person by a bidder or his authorized representative, provided his identity is made known and he signs a receipt for the bid, but only if the withdrawal is made prior to the exact time set for receipt of bids.

(c) The only acceptable evidence to establish:

(i) The date of mailing of a late bid, modification or withdrawal sent either by registered or certified mail is the U. S. Postal Service postmark on the wrapper or on the original receipt from the U. S. Postal Service. If neither postmark shows a legible date, the bid, modification or withdrawal shall be deemed to have been mailed late. (The term "postmark" means a printed, stamped, or otherwise placed impression that is readily identifiable without further action as having been supplied and affixed on the date of mailing by employees of the U. S. Postal Service.)

(ii) The time of receipt at the Government installation is the time/date stamp of such installation on the bid wrapper or other documentary evidence of receipt maintained by the installation.

(d) Notwithstanding the above, a late modification of an otherwise successful bid which makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

Note: The term "telegram" includes mailgrams.

8. Reserved.

11. NOTICE OF REVISION, CONTINGENT FEE

Following paragraph 3 of Standard Form 19-B, add the following: "If the bidder by checking the appropriate box provided therefore, has represented that he has employed or retained a company or person (other than a full-time bona fide employee solely for the bidder to solicit or secure this contract, or that he has paid or agreed to pay any fee, commission, percentage, or brokerage fee to any company or person contingent upon or resulting from the award of this contract, he shall furnish, in duplicate,

READ THE FOLLOWING IN CONJUNCTION WITH INSTRUCTIONS TO BIDDERS
(STANDARD FORM 22)

INVITATION FOR BIDS (Cont'd)

a complete Standard Form 119, Contractor's Statement of Contingent or Other Fees. If bidder has previously furnished a completed Standard Form 119 to the office issuing this solicitation, he may accompany his bid with a signed statement (a) indicating when such completed form was previously furnished, (b) identifying by number of previous solicitation or contract, if any, in connection with which such form was submitted, and (c) representing that this statement in such form is applicable to this bid."

12. PRE-AWARD INFORMATION:

Each bidder shall, upon request of the Contracting Officer, furnish a statement of whether he is now or ever has been engaged in any work similar to that covered by the specifications herein, the dollar value thereof, the year in which the work was performed and the manner of its execution, and giving such other information as will tend to show the bidder's ability to prosecute the required work. The "such other information" referred to above shall include but is not limited to the following:

- (a) The name and address of the office or firm under which such similar work was performed.
- (b) A list of key personnel available for the instant project and their qualifications.
- (c) A copy of the bidder's latest financial statement, including the names of banks or other financial institutions with which the bidder conducts business. If the financial statement is more than 60 days old, a certificate should be attached stating that the financial condition is substantially the same, or if not the same, the changes that have taken place. Such statement will be treated as confidential.
- (d) A list of present commitments including the dollar value thereof, and name of office under which the work is being performed.

13. PREAWARD SAFETY CONFERENCE

Where an apparent low bidder, in performance of contracts during the previous three-year period, incurred one or more accidents, or where, in the opinion of the Contracting Officer, there is any question regarding his compliance with any safety or accident prevention requirement, such bidder on request of the Contracting Officer prior to any award under this solicitation, shall attend a conference with representatives of the Contracting Officer to discuss any such accidents or non-compliance, the reasons for their occurrence, and measures which will be taken to preclude any recurrence thereof.

READ THE FOLLOWING IN CONJUNCTION WITH INSTRUCTIONS TO BIDDERS
(STANDARD FORM 22)

INVITATION FOR BIDS (Cont'd)

Information elicited at this conference will be used by the Contracting Officer, in conjunction with other information obtained in a preaward survey, in determining the bidder's responsibility.

The items discussed, the preventive measures considered, and any conclusions reached in this conference shall be recorded in minutes of the meeting, which shall be authenticated by the signatures of representatives of the bidder and the Contracting Officer, and any procedures noted therein as agreed upon shall become an obligation of the bidder, along with all other safety and accident prevention requirements of the contract, if award is made to him.

14. ACKNOWLEDGING AMENDMENTS:

Bidders are required to acknowledge receipt of all amendments to this invitation on the Bid Form (Standard Form 21) in the space provided, or by separate letter or telegram prior to opening of bids. Failure to acknowledge all amendments may cause the REJECTION OF THE BID.

15. DAVIS-BACON ACT, 40 U.S.C. 276a

Bidders are cautioned that this Act is also applicable to temporary facilities such as batch plants, sand pits, rock quarries, and similar operations, located off the immediate site of construction but set up exclusively to furnish required materials for a construction project on the site of the work. Complete payroll records must be maintained for employees at any such facility.

16. LISTING OF EMPLOYMENT OPENINGS (1973 SEP)

Offerors should note that this solicitation includes a provision which will be included in the contract requiring the listing of employment openings with the local office of the State employment service system if the award is for \$10,000 or more.

17. PLANT

Each bidder shall, upon request of the Contracting Officer, furnish a list of plant available to the bidder and proposed for use on the work.

READ THE FOLLOWING IN CONJUNCTION WITH INSTRUCTION TO BIDDERS
(STANDARD FORM 22)

INVITATION FOR BIDS (Cont'd)

18. COPIES OF STANDARD GOVERNMENT FORMS AND SAFETY REQUIREMENTS:

Copies of bid bond, payment bond and performance bond and Corps of Engineers Manual, "General Safety Requirements", EM 385-1-1 dated 1 June 1977 may be obtained upon application. In addition, the Contractor will be required to comply with the Safety and Health Regulations for Construction (OSHA Standards, U. S. Department of Labor).

19. CONTRACTOR QUALITY CONTROL:

The successful bidder will be required to provide an effective quality control program as specified in paragraph, CONTRACTOR QUALITY CONTROL of the SPECIAL PROVISIONS.

20. ORDER OF PRECEDENCE:

In the event of an inconsistency between provisions of this solicitation, the inconsistency shall be resolved by giving precedence in the following order: (a) the Schedule (excluding the Specifications); (b) Terms and Conditions of the solicitation, if any; (c) General Provisions; (d) other provisions of the contract, where attached or incorporated by reference; and (e) the Specifications.

21. NOTICE REGARDING BUY AMERICAN ACT

The Buy American Act (41 U.S.C. 10a-10d) generally requires that only domestic construction material be used in the performance of this contract. Exception from the Buy American Act shall be permitted only in the case of nonavailability of domestic construction materials. A bid or proposal offering nondomestic construction material will not be accepted unless specifically approved by the Government. When a bidder or offeror proposes to furnish nondomestic construction material, his bid or proposal must set forth in itemization of the quantity, unit price, and intended use of each item of such nondomestic construction material. When offering nondomestic construction material pursuant to this paragraph, bids or proposals may also offer, at stated prices, any available comparable domestic construction material, so as to avoid the possibility that failure of a nondomestic construction material to be acceptable under this paragraph will cause rejection of the entire bid.

INVITATION FOR BIDS (Cont'd)

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY

(EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation			Goals for female participation	
Timetable	Trade	Goal (percent)	Timetable	Goals (percent)
Until further notice.	All	2.5	From Apr. 1, 1978 until Mar. 31, 1979	3.1
			From Apr. 1, 1979 until Mar. 31, 1980	5.0
			From Apr. 1, 1980 until Mar. 31, 1981	6.9

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (Berks County, Pennsylvania).

Goals for Women apply nationwide.

(8 May 78)

23. Product Substitution

- a. Other producers of materials that are similar in every respect to those materials specified may seek approval to bid on the project by formally applying to the office of the District Engineer using the following procedure:
 1. All requests for substitution must be submitted to the District Engineer, in writing, 10 days prior to the bid date to allow time for proper consideration and notification to all bidders.
 2. The request is accompanied by complete data on the proposed substitution substantiating compliance with the Contract Documents including product identification and description, performance and test data, references and duplicate samples where applicable, and an itemized comparison of the proposed substitution with the products specified or named by Addenda, with data relating to Contract time schedule, design and artistic effect where applicable, and its relationship to separate contracts.
 3. The request is accompanied by accurate cost data on the proposed substitution in comparison with the product specified, whether or not modification of the Contract Sum is to be a consideration.
 4. The producer shall inclose, with the request for approval, a list of 5 "similar" projects produced by him within the last five years and a list of engineers/architects who have used his material on similar projects.
 5. The Government will review the producer's request for approval, and, if satisfied, will issue an addenda allowing that producer to bid on the project.
 6. Should any producer bid on this project without obtaining prior approval, the Government will consider that action grounds for disapproval of the producer after the project has been bid.
- b. Requests for substitution, when forwarded by the Contractor to the Government, are understood to mean that the Contractor:
 1. Represents that he has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified;
 2. Will provide the same guarantee for the substitution that he would for that specified;
 3. Certifies that the cost data presented is complete and includes all related costs under this Contract, but excludes cost under

separate contracts and the Government's design costs, and he waives all claims for additional costs related to the substitution which subsequently become apparent; and

4. Will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.

c. Substitutions will not be considered if:

1. They are indicated or implied on shop drawing submissions without the formal request required above; or
2. For their implementation they require a substantial revision of the Contract Documents in order to accommodate their use.

d. Products are generally specified by ASTM or other reference standard, and/or by manufacturer's name and model number or trade name. When specified only by reference standard, the Contractor may select any product meeting this standard, by any manufacturer. When several products or manufacturers are specified as being equally acceptable, the Contractor has the option of using any product and manufacturer combination listed.

MINORITY BUSINESS ENTERPRISE (1976 OCT)

The offeror represents that he () is, () is not, a minority business enterprise. A minority business enterprise is defined as a "business, at least fifty percent (50%) of which is owned by minority group members or, in case of publicly owned business, at least fifty-one percent (51%) of the stock of which is owned by minority group members". For the purpose of this definition, minority group members are Negroes, Spanish-speaking American persons, American-Orientals, American Indians, American Eskimos, and American-Aleuts.

EQUAL EMPLOYMENT COMPLIANCE (1974 APR)

By submission of this offer, the offeror represents that, to the best of his knowledge and belief except as noted below, up to the date of this offer no written notice such as a show cause letter, a letter indicating probable cause, or any other formal written notification citing specific deficiencies, has been received by the offeror from any Federal Government Agency or representative thereof that the offer or any of its divisions or affiliates or known first-tier subcontractors is in violation of any of the provisions of Executive Order No. 11246 of September 24, 1965, Executive Order No. 11375 of October 13, 1967, or rules and regulations of the Secretary of Labor (41 CFR, Chapter 60) and specifically as to not having an acceptable affirmative action program or being in noncompliance with any other aspect of the Equal Employment Opportunity Program. It is further agreed that should there be any change in the status or circumstances between this date and the date of expiration of this offer or any extension thereof, the Contracting Officer will be notified promptly.

STANDARD FORM 21

DECEMBER 1965 EDITION

GENERAL SERVICES ADMINISTRATION

FED. PRINT. REG. # 41 CFR 101-11.6

BID FORM
(CONSTRUCTION CONTRACT)

REFERENCE

Invitation No.

DACW61-78-B-0064

Read the Instructions to Bidders (Standard Form 22)

This form to be submitted in duplicate

DATE OF INVITATION

11 August 1978

NAME AND LOCATION OF PROJECT

Restoration of Gruber Wagon Works
Blue Marsh Lake
Berks County, Pennsylvania

NAME OF BIDDER (Type or print)

TO: The District Engineer
U. S. Army Engineer District, Philadelphia
Custom House - 2d & Chestnut Streets
Philadelphia, PA 19106

In compliance with the above-dated invitation for bids, the undersigned hereby proposes to perform all work for restoration of historic Gruber Wagon Works, Berks County, Pennsylvania, in strict accordance with the General Provisions, specifications, schedules, drawings, and conditions for the prices set forth in the Bidding Schedule.

The undersigned agrees that, upon written acceptance of this bid, mailed or otherwise furnished within 30 calendar days (See IFB para. Titled "Minimum Acceptance period,") after the date of opening of bids, he will within 10 calendar days (unless a longer period is allowed) after receipt of the prescribed forms, execute Standard Form 23, Construction Contract, and give performance and payment bonds on Government standard forms with good and sufficient surety.

The undersigned agrees, if awarded the contract, to commence the work within 10 calendar days after the date of receipt of notice to proceed, and to complete the work within 240 calendar days after the date of receipt of notice to proceed

Attach to this form: The undersigned a knowledge receipt of the bid, work, measurement of the work, and of bids, drawings, and specifications, etc. (Give number and date of each)

The representations and certifications on the accompanying STANDARD FORM 19-B are made a part of this bid.

ENCLOSED IS BID GUARANTEE, CONSISTING OF

IN THE AMOUNT OF

NAME OF BIDDER (Type or print)

FULL NAME OF ALL PARTNERS (Type or print)

BUSINESS ADDRESS (Type or print) (Include "ZIP Code")

BY (Signature in ink Type or print name under signature)

TITLE (Type or print)

DIRECTIONS FOR SUBMITTING BIDS: Envelopes containing bids, guarantee, etc., must be sealed, marked, and addressed as follows:

The District Engineer
U. S. Army Engineer District, Philadelphia
Custom House, 2d & Chestnut Streets
Philadelphia, PA 19106

Envelopes shall be marked in the lower left hand corner: "Bids under Invitation No. DACW61-78-B-0064 to be opened 12 September 1978."

CAUTION—Bids should not be qualified by exceptions to the bidding conditions.

REPRESENTATIONS AND CERTIFICATIONS

(Construction and Architect-Engineer Contract)

(For use with Standard Forms 19, 21 and 252)

REFERENCE (Enter name No. (1) as on SF 19, 21 and 252)

Invitation No.

DAW 1-72-1-007

(Enter name, address, city, state, and ZIP Code)

(Enter name)

In negotiated procurements, "bid" and "bidder" shall be construed to mean "offer" and "offeror."

The bidder makes the following representations and certifications as a part of the bid identified above. (Check appropriate boxes.)

1. SMALL BUSINESS

He ☐ is, ☐ is not, a small business concern. (A small business concern for the purpose of Government procurement is a concern, including its affiliates, which is independently owned and operated, is not dominant in the field of operations in which it is bidding on Government contracts, and can further qualify under the criteria concerning number of employees, average annual receipts, or other criteria as prescribed by the Small Business Administration. For additional information see governing regulations of the Small Business Administration (13 CFR Part 121)).

2. MINORITY BUSINESS ENTERPRISE

He ☐ is, ☐ is not a minority business enterprise. A minority business enterprise is defined as a "business, at least 51 percent of which is owned by minority group members or, in case of publicly owned businesses, at least 51 percent of the stock of which is owned by minority group members. For the purpose of this definition, minority group members are Negroes, Spanish-speaking American persons, American Orientals, American-Indians, American Eskimos, and American Aleuts."

3. CONTINGENT FEE

(a) He ☐ has, ☐ has not, employed or retained any company or person (other than a full-time bona fide employee working solely for the bidder) to solicit or secure this contract, and (b) he ☐ has, ☐ has not, paid or agreed to pay any company or person (other than a full-time bona fide employee working solely for the bidder) any fee, commission, percentage or brokerage fee, contingent upon or resulting from the award of this contract, and agrees to furnish information relating to (a) and (b) above as requested by the Contracting Officer. (For interpretation of the representation including the term "bona fide employee," see Code of Federal Regulations Title 41, Subpart 1-1.5.)

4. TYPE OF ORGANIZATION

He operates as an ☐ individual, ☐ partnership, ☐ joint venture, ☐ corporation, incorporated in State of

5. INDEPENDENT PRICE DETERMINATION

(a) By submission of this bid, each bidder certifies, and in the case of a joint bid each party thereto certifies on its own organization, that in connection with this procurement:

(1) The prices in this bid have been arrived at independently, without consultation, communication, agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;

(2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, in the case of a bid prior to award, in the case of a proposal, directly or indirectly to any other bidder or to any competitor, and

(3) No attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition.

(b) Each person signing this bid certifies that:

(1) He is the person in the bidder's organization responsible within that organization for the decision as to the prices being bid herein and that he has not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above, or

(2) (i) He is not the person in the bidder's organization responsible within that organization for the decision as to the prices being bid herein but that he has been authorized in writing to act as agent for the person responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above, and as their agent does hereby so certify, and (ii) he has not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above.

(c) This certification is not applicable to a foreign bidder submitting a bid for a contract which requires performance or delivery outside the United States, its possessions, and Puerto Rico.

(d) A bid will not be considered for award where (a)(1), (a)(3), or (b) above, has been deleted or modified. Where (a)(2) above, has been deleted or modified, the bid will not be considered for award unless the bidder furnishes with the bid a signed statement which sets forth in detail the circumstances of the disclosure and the head of the agency, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

NOTE: Bids must set forth full, accurate and complete information as required by this invitation for bids (including attachments). The penalty for making false statements in bids is provided in 18 U.S.C. 1001.

THE FOLLOWING NEED BE CHECKED ONLY IF BID EXCEEDS \$10,000 IN AMOUNT.

6. EQUAL OPPORTUNITY

Has the bidder, if he has not participated in a previous contract or subcontract to the Equal Opportunity Clause hereof, or clause which is contained in Section 501 of Executive Order No. 11246, or the clause contained in Section 201 of Executive Order No. 11375, he has not filed all required compliance reports, and representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained prior to subcontract awards.

(The above representations need not be submitted in connection with contracts or subcontracts which are exempt from the equal opportunity clause.)

7. PARENT COMPANY AND EMPLOYER IDENTIFICATION NUMBER

Each bidder shall furnish the following information by filling in the appropriate blocks:

(a) Is the bidder owned or controlled by a parent company as described below? Yes ☐ No ☐ (For the purpose of this bid, a parent company is defined as one which either owns or controls the activities and basic business policies of the bidder. To own another company means the parent company must own at least a majority (more than 50 percent) of the voting rights in that company. To control another company, such ownership is not required, if another company is able to formulate, determine, or veto basic business policy decisions of the bidder, such other company is considered the parent company of the bidder. This control may be exercised through the use of dominant minority voting rights, use of proxy voting, contractual arrangements, or otherwise.)

(b) If the answer to (a) above is "Yes," bidder shall insert in the space below the name and main office address of the parent company.

NAME OF PARENT COMPANY

MAIN OFFICE ADDRESS (No. Street, City, State, and ZIP Code)

(c) Bidder shall insert in the applicable space below, if he has no parent company, his own Employer's Identification Number (E.I. No.) (Federal Social Security Number used on Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941), or, if he has a parent company, the E.I. No. of his parent company.

EMPLOYER
IDENTIFICATION NUMBER OF



PARENT COMPANY

BIDDER

8. CERTIFICATION OF NONSEGREGATED FACILITIES

(Applicable to (1) contracts, (2) subcontracts, and (3) agreements with applicants who are themselves performing federally assisted construction contracts, exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause.)

By the submission of this bid, the bidder, offeror, applicant, or subcontractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that he will retain such certifications in his files; and that he will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

9. CLEAN AIR AND WATER

(Applicable if the bid or offer exceeds \$100,000, or the contracting officer has determined that orders under an indefinite quantity contract in any year will exceed \$100,000, or a facility to be used has been the subject of a conviction under the Clean Air Act (42 U.S.C. 1857c-8(c)(1)) or the Federal Water Pollution Control Act (33 U.S.C. 1319(c)) and is listed by EPA, or is not otherwise exempt.)

The bidder or offeror certifies as follows:

(a) Any facility to be utilized in the performance of this proposed contract has ☐, has not ☐, been listed on the Environmental Protection Agency List of Violating Facilities.

(b) He will promptly notify the contracting officer, prior to award, of the receipt of any communication from the Director, Office of Federal Activities, Environmental Protection Agency, indicating that any facility which he proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities.

(c) He will include substantially this certification, including this paragraph (c), in every nonexempt subcontract.

GRUBER RESTORATION

Invitation No. DACW61-78-B-0064

BIDDING SCHEDULE
(To be attached to Bid Form)

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
1.	Site Clearing & Grading	- - -	Job	L.S.	\$ _____
2.	Pest Control	- - -	Job	L.S.	\$ _____
3.	Foundation Drainage System	- - -	Job	L.S.	\$ _____
4.	Corrugated Pipe Culverts	- - -	Job	L.S.	\$ _____
5.	Gravel Surfacing	.			
	a. Exterior	390	S.Y.	\$ _____	\$ _____
	b. Cellar Walkway	- - -	Job	L.S.	\$ _____
6.	Site Work				
	a. Seeding		S.Y.	\$ _____	\$ _____
	b. Slope Protection		S.Y.	\$ _____	\$ _____
7.	Concrete	- - -	Job	L.S.	\$ _____
8.	CMU Foundations & Walls	- - -	Job	L.S.	\$ _____
9.	Masonry Repair				
	a. East Chimney	- - -	Job	L.S.	\$ _____
	b. West Chimney	- - -	Job	L.S.	\$ _____
	c. Forge	- - -	Job	L.S.	\$ _____
10.	Stone Veneer Walls	- - -	Job	L.S.	\$ _____
11.	Additional Stone	40	C.Y.	\$ _____	\$ _____
12.	Structural Timber Repair	- - -	Job	L.S.	\$ _____
13.	Floor Replacement & Repair		S.F.	\$ _____	\$ _____

GRUBER RESTORATION

Invitation No. DACW61-78-B-0024

BIDDING SCHEDULE
(To be attached to Bid Form)

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
14.	Cornice Replacement & Repair				
	a. Cornice Type A		L.F.	\$ _____	\$ _____
	b. Cornice Type B		L.F.	\$ _____	\$ _____
	c. Cornice Type C		L.F.	\$ _____	\$ _____
15.	Restoration of Doors & Windows	- - -	Job	L.S.	\$ _____
16.	Siding Replacement & Repair				
	a. Drop Siding Types		S.F.	\$ _____	\$ _____
	b. Vertical Board Type		S.F.	\$ _____	\$ _____
17.	New Slate Roof	- - -	Job	L.S.	\$ _____
18.	New Metal Roofs	- - -	Job	L.S.	\$ _____
19.	New Gutters & Downspouts	- - -	Job	L.S.	\$ _____
20.	Misc. Mech. Room Work	- - -	Job	L.S.	\$ _____
21.	Painting	- - -	Job	L.S.	\$ _____
22.	Otto Engine Support Systems	- - -	Job	L.S.	\$ _____
23.	Restoration of Machinery Drive System	- - -	Job	L.S.	\$ _____
24.	Restoration of Hand Operated Elevator	- - -	Job	L.S.	\$ _____
25.	Protective Floor Matting		S.Y.	\$ _____	\$ _____
26.	Ramps & Railings	- - -	Job	L.S.	\$ _____
27.	Restoration of Pot Bellied Stoves				
	a. Stove in Wood Shop	- - -	Job	L.S.	\$ _____

GRUBER RESTORATION
Invitation No. DACW61-0064

BIDDING SCHEDULE
(To be attached to Bid Form)

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
	b. Stove in Forge	- - -	Job	L.S.	\$ _____
	c. Stove in Paint Shop	- - -	Job	L.S.	\$ _____
28.	Portable Elevator Stairs	- - -	Job	L.S.	\$ _____
29.	Restoration of Urinals	- - -	Job	L.S.	\$ _____
30.	Sprinkler System	- - -	Job	L.S.	\$ _____
31.	Miscellaneous Carpentry, Stairs, Ramps, Railings, and Bridge	- - -	Job	L.S.	\$ _____
32.	Installation of Water Service to Mech. Room				
	a. 3/4" Water Line	180	L.F.	\$ _____	\$ _____
	b. 4" Water Line	180	L.F.	\$ _____	\$ _____
33.	Plumbing System	- - -	Job	L.S.	\$ _____
34.	Installation of Electric Services	- - -	Job	L.S.	\$ _____
35.	Electric System Renovation and Extension	- - -	Job	L.S.	\$ _____
36.	Emergency Light System	- - -	Job	L.S.	\$ _____
37.	Security System	- - -	Job	L.S.	\$ _____
38.	Rock Excavation	15	C.Y.	\$ _____	\$ _____

TOTAL ESTIMATED AMOUNT \$ _____

NOTES: (a) For the purpose of initial evaluation of proposals, the following will be utilized in resolving arithmetic discrepancies found on the face of the bidding schedule as submitted by offerers:

- (1) Obviously misplaced decimal points will be corrected:
- (2) In case of discrepancy between unit price and extended price, the unit price will govern:
- (3) Apparent errors in extension of unit prices will be corrected: and
- (4) Apparent errors in addition of lump-sum and extended prices will be corrected.

(b) For the purposes of proposal evaluation, the Government will proceed on the assumption that the offeror intends his proposal to be evaluated on the basis of the unit prices, extension, and totals arrived at by resolution of arithmetic discrepancies as provided above and the proposal will be so reflected on the abstract of proposals.

(c) If a proposal or modification to a proposal based on unit prices is submitted and provides for a lump sum adjustment to the total estimated amount, the application of the lump sum adjustment to each unit price, including lump sum units, in the schedule must be stated or, if it not stated, the offeror agrees that the lump sum adjustment shall be applied on a pro rata basis to every unit price in the unit price schedule.

INSTRUCTIONS TO BIDDERS

(CONSTRUCTION CONTRACT)

1. Explanations to Bidders. Any explanation desired by a bidder regarding the meaning or interpretation of the invitation for bids, drawings, specifications, etc., must be requested in writing and with sufficient time allowed for a reply to reach bidders before the submission of their bids. Any interpretation made will be in the form of an amendment of the invitation for bids, drawings, specifications, etc., and will be furnished to all prospective bidders. Its receipt by the bidder must be acknowledged in the space provided on the Bid Form (Standard Form 21) or by letter or telegram received before the time set for opening of bids. Oral explanations or instructions given before the award of the contract will not be binding.

2. Conditions Affecting the Work. Bidders should visit the site and take such other steps as may be reasonably necessary to ascertain the nature and location of the work, and the general and local conditions which can affect the work or the cost thereof. Failure to do so will not relieve bidders from responsibility for estimating properly the difficulty or cost of successfully performing the work. The Government will assume no responsibility for any understanding or representations concerning conditions made by any of its officers or agents prior to the execution of the contract, unless included in the invitation for bids, the specifications, or related documents.

3. Bidder's Qualifications. Before a bid is considered for award, the bidder may be requested by the Government to submit a statement regarding his previous experience in performing comparable work, his business and technical organization, financial resources, and plant available to be used in performing the work.

4. Bid Guarantee. Where a bid guarantee is required by the invitation for bids, failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

A bid guarantee shall be in the form of a firm commitment, such as a bid bond, postal money order, certified check, cashier's check, irrevocable letter of credit or, in accordance with Treasury Department regulations, cer-

tain bonds or notes of the United States. Bid guarantees, other than bid bonds, will be returned (a) to unsuccessful bidders as soon as practicable after the opening of bids, and (b) to the successful bidder upon execution of such further contractual documents and bonds as may be required by the bid as accepted.

If the successful bidder, upon acceptance of his bid by the Government within the period specified therein for acceptance (sixty days if no period is specified) fails to execute such further contractual documents, if any, and give such bond(s) as may be required by the terms of the bid as accepted within the time specified (ten days if no period is specified) after receipt of the forms by him, his contract may be terminated for default. In such event he shall be liable for any cost of procuring the work which exceeds the amount of his bid, and the bid guarantee shall be available toward offsetting such difference.

5. Preparation of Bids. (a) Bids shall be submitted on the forms furnished, or copies thereof, and must be manually signed. If erasures or other changes appear on the forms, each erasure or change must be initialed by the person signing the bid. Unless specifically authorized in the invitation for bids, telegraphic bids will not be considered.

(b) The bid form may provide for submission of a price or prices for one or more items, which may be lump sum bids, alternate prices, scheduled items resulting in a bid on a unit of construction or a combination thereof, etc. Where the bid form explicitly requires that the bidder bid on all items, failure to do so will disqualify the bid. When submission of a price on all items is not required, bidders should insert the words "no bid" in the space provided for any item on which no price is submitted.

(c) Unless called for, alternate bids will not be considered.

(d) Modifications of bids already submitted will be considered if received at the office designated in the invitation for bids by the time set for opening of bids. Telegraphic modifications will be considered, but should not reveal the amount of the original or revised bid.

6. Submission of Bids. Bids must be sealed, marked, and addressed as directed in the invitation for bids. Failure to do so may result in a premature opening of, or a failure to open, such bid.

7. Late Bids and Modifications or Withdrawals. (This paragraph applies to all advertised solicitations. In the case of Department of Defense negotiated solicitations, it shall also apply to late offers and modifications (other than the normal revisions of offers by selected offerors during the usual conduct of negotiations with such offerors) but not to withdrawal of offers. Unless otherwise provided, this paragraph does not apply to negotiated solicitations issued by civilian agencies.)

(a) Bids and modifications or withdrawals thereof received at the office designated in the invitation for bids after the exact time set for opening of bids will not be considered unless: (1) They are received before award is made; and either (2) they are sent by registered mail, or by certified mail for which an official dated post office stamp (postmark) on the original Receipt for Certified Mail has been obtained and it is determined by the Government that the late receipt was due solely to delay in the mails for which the bidder was not responsible; or (3) if submitted by mail (or by telegram if authorized), it is determined by the Government that the late receipt was due solely to mishandling by the Government after receipt at the Government installation: *Provided*, That timely receipt at such installation is established upon examination of an appropriate date or time stamp (if any) of such installation, or of other documentary evidence of receipt (if readily available) within the control of such installation or of the post office serving it. However, a modification which makes the terms of the otherwise successful bid more favorable to the Government will be considered at any time it is received and may thereafter be accepted.

(b) Bidders using certified mail are cautioned to obtain a Receipt for Certified Mail showing a legible, dated postmark and to retain such receipt against the chance that it will be required as evidence that a late bid was timely mailed.

(c) The time of mailing of late bids submitted by registered or certified mail shall be deemed to be the last minute of the date shown in the postmark on the registered mail receipt or registered mail wrapper or on

the Receipt for Certified Mail unless the bidder furnishes evidence from the post office station of mailing which establishes an earlier time. In the case of certified mail, the only acceptable evidence is as follows: (1) Where the Receipt for Certified Mail identifies the post office station of mailing, evidence furnished by the bidder which establishes that the business day of that station ended at an earlier time, in which case the time of mailing shall be deemed to be the last minute of the business day of that station; or (2) an entry in ink on the Receipt for Certified Mail showing the time of mailing and the initials of the postal employee receiving the item and making the entry, with appropriate written verification of such entry from the post office station of mailing, in which case the time of mailing shall be the time shown in the entry. If the postmark on the original Receipt for Certified Mail does not show a date, the bid shall not be considered.

8. Withdrawal of Bids. Bids may be withdrawn by written or telegraphic request received from bidders prior to the time set for opening of bids.

9. Public Opening of Bids. Bids will be publicly opened at the time set for opening in the invitation for bids. Their content will be made public for the information of bidders and others interested, who may be present either in person or by representative.

10. Award of Contract. (a) Award of contract will be made to that responsible bidder whose bid, conforming to the invitation for bids, is most advantageous to the Government, price and other factors considered.

(b) The Government may, when in its interest, reject any or all bids or waive any informality in bids received.

(c) The Government may accept any item or combination of items of a bid, unless precluded by the invitation for bids or the bidder includes in his bid a restrictive limitation.

11. Contract and Bonds. The bidder whose bid is accepted will, within the time established in the bid, enter into a written contract with the Government and, if required, furnish performance and payment bonds on Government standard forms in the amounts indicated in the invitation for bids or the specifications.

STANDARD FORM 23
JANUARY 1961 EDITION
GENERAL SERVICES ADMINISTRATION
FED. PROC. REG. (41 CFR) 1-16.401

CONSTRUCTION CONTRACT
(See instructions on reverse)

CONTRACT NO.

DATE OF CONTRACT

NAME AND ADDRESS OF CONTRACTOR

CHECK APPROPRIATE BOX

- ☐ Individual
☐ Partnership
☐ Joint Venture
☐ Corporation, incorporated in the
State of

DEPARTMENT OR AGENCY

CONTRACT FOR (Work to be performed)

PLACE

CONTRACT PRICE (Express in words and figures)

ADMINISTRATIVE DATA (Optional)

The United States of America (hereinafter called the Government), represented by the Contracting Officer executing this contract, and the individual, partnership, joint venture, or corporation named above (hereinafter called the Contractor), mutually agree to perform this contract in strict accordance with the General Provisions (), and the following designated specifications, schedules, drawings, and conditions:

WORK SHALL BE STARTED

WORK SHALL BE COMPLETED

Alterations. The following alterations were made in this contract before it was signed by the parties hereto.

In witness whereof, the parties hereto have executed this contract as of the date entered on the first page hereof.

THE UNITED STATES OF AMERICA

CONTRACTOR

By _____

(Name of Contractor)

(Official title)

By _____

(Signature)

(Title)

INSTRUCTIONS

1. The full name and business address of the Contractor must be inserted in the space provided on the face of the form. The Contractor shall sign in the space provided above with his usual signature and typewrite or print his name under the signature.

2. An officer of a corporation, a member of a partnership, or an agent signing for the Contractor shall place his signature and title after the word "By" under the name of the Contractor. A contract executed by an attorney or agent on behalf of the Contractor shall be accompanied by two authenticated copies of his power of attorney or other evidence of his authority to act on behalf of the Contractor.

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GENERAL PROVISIONS

(Construction Contract)

Issued By: Department of the Army, Corps of Engineers

(General Provisions 1 through 31 and 32 through 40 are those prescribed by the General Services Administration in Standard Form 23-A, April 1975 edition and Standard Form 19-A, November 1972 edition, respectively, as amended pursuant to the latest revisions of the Armed Services Procurement Regulation and Engineer Contract Instructions, ER 1180-1-1.)

1.1 DEFINITIONS

(The following clause is applicable if the procurement instrument identification number is prefixed by the letters "DACW")

(a) The term "head of the agency" or "Secretary" as used herein means the Secretary of the Army; and the term "his duly authorized representative" means the Chief of Engineers, Department of the Army, or an individual or board designated by him.

(b) The term "Contracting Officer" as used herein means the person executing this contract on behalf of the Government and includes a duly appointed successor or authorized representative. (ASPR 7-602.1 & ECI 7-070)

1.2 DEFINITIONS (1964 JUN)

(The following clause is applicable if the procurement instrument identification number is prefixed by the letters "DACA")

(a) The term "head of the agency" or "Secretary" as used herein means the Secretary, the Under Secretary, any Assistant Secretary, or any other head or assistant head of the executive or military department or other Federal agency; and the term "his duly authorized representative" means any person or persons or board (other than the Contracting Officer) authorized to act for the head of the agency or the Secretary.

(b) The term "Contracting Officer" as used herein means the person executing this contract on behalf of the Government and includes a duly appointed successor or authorized representative. (ASPR 7-602.1)

2. SPECIFICATIONS AND DRAWINGS (1964 JUN)

The Contractor shall keep on the work a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy either in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at his own risk and expense. The Contracting Officer shall furnish from time to time such detail drawings and other information as he may consider necessary, unless otherwise provided. (ASPR 7-602.2)

3. CHANGES (1968 FEB)

(a) The Contracting Officer may, at any time, without notice to the sureties, by written order designated or indicated to be a change order, make any change in the work within the general scope of the contract, including but not limited to changes:

- (i) in the specifications (including drawings and designs);
- (ii) in the method or manner of performance of the work;

- (iii) in the Government furnished facilities, equipment, materials, services, or site; or
- (iv) directing acceleration in the performance of the work.

(b) Any other written order or an oral order (which terms as used in this paragraph (b) shall include direction, instruction, interpretation or determination) from the Contracting Officer, which causes any such change, shall be treated as a change order under this clause, provided that the Contractor gives the Contracting Officer written notice stating the date, circumstances, and source of the order and that the Contractor regards the order as a change order.

(c) Except as herein provided, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment hereunder.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any order, an equitable adjustment shall be made and the contract modified in writing accordingly. *Provided, however,* That except for claims based on defective specifications, no claim for any change under (b) above shall be allowed for any costs incurred more than 20 days before the Contractor gives written notice as therein required. *And provided further,* That in the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with such defective specifications.

(e) If the Contractor intends to assert a claim for an equitable adjustment under this clause, he must, within 30 days after receipt of a written change order under (a) above or the furnishing of a written notice under (b) above, submit to the Contracting Officer a written statement setting forth the general nature and monetary extent of such claim, unless this period is extended by the Government. The statement of claim hereunder may be included in the notice under (b) above.

(f) No claim by the Contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment under this contract. (ASPR 7-602.3)

4. DIFFERING SITE CONDITIONS (1968 FEB)

(a) The Contractor shall promptly, and before such conditions are disturbed, notify the Contracting Officer in writing of: (1) subsurface or latent physical conditions at the site differing materially from those indicated in this contract, or (2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in this contract. The Contracting Officer shall promptly investigate the conditions, and if he finds that such conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work under this

contract, whether or not changed as a result of such conditions, an equitable adjustment shall be made and the contract modified in writing accordingly.

(b) No claim of the Contractor under this clause shall be allowed unless the Contractor has given the notice required in (a) above, *provided*, however, the time prescribed therefor may be extended by the Government.

(c) No claim by the Contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment under this contract. (ASPR 7 602.4)

5. TERMINATION FOR DEFAULT - DAMAGES FOR DELAY - TIME EXTENSIONS (1969 AUG)

(a) If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with such diligence as will insure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within such time, the Government may, by written notice to the Contractor, terminate his right to proceed with the work or such part of the work as to which there has been delay. In such event the Government may take over the work and prosecute the same to completion, by contract or otherwise, and may take possession of and utilize in completing the work such materials, appliances, and plant as may be on the site of the work and necessary therefor. Whether or not the Contractor's right to proceed with the work is terminated, he and his sureties shall be liable for any damage to the Government resulting from his refusal or failure to complete the work within the specified time.

(b) If fixed and agreed liquidated damages are provided in the contract and if the Government so terminates the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the Government in completing the work.

(c) If fixed and agreed liquidated damages are provided in the contract and if the Government does not so terminate the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until the work is completed or accepted.

(d) The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if:

(1) The delay in the completion of the work arises from causes other than normal weather beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, acts of the public enemy, acts of the Government in either its sovereign or contractual capacity, acts of another contractor in the performance of a contract with the Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, or delays of subcontractors or suppliers arising from causes other than normal weather beyond the control and without the fault or negligence of both the Contractor and such subcontractors or suppliers; and

(2) The Contractor, within 10 days from the beginning of any such delay (unless the Contracting Officer grants a further period of time before the date of final payment under the contract), notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of the delay and extend the time for completing the work when, in his judgment, the findings of fact justify such an extension, and his findings of fact shall be final and conclusive on the parties, subject only to appeal as provided in the "Disputes" clause of this contract.

(e) If, after notice of termination of the Contractor's right to proceed under the provisions of this clause, it is determined for any reason that the Contractor was not in default under the provisions of this clause, or that the delay was excusable under the provisions of this clause, the rights and obligations of the parties shall, if the contract contains a clause providing for termination for convenience of the Government, be the same as if the notice of termination had been issued pursuant to such clause. If, in the foregoing circumstances, this contract does not contain a clause providing for termination for convenience of the Government, the contract shall be equitably adjusted to compensate for such termination and the contract modified accordingly. Failure to agree to any such adjustment shall be a dispute concerning a question of fact within the meaning of the clause of this contract entitled "Disputes".

(f) The rights and remedies of the Government provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

(g) As used in paragraph (d)(1) of this clause, the term "subcontractors or suppliers" means subcontractors or suppliers at any tier. (ASPR 7 602.5)

6. DISPUTES (1964 JUN)

(a) Except as otherwise provided in this contract, any dispute concerning a question of fact arising under this contract which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The decision of the Contracting Officer shall be final and conclusive unless, within 30 days from the date of receipt of such copy, the Contractor mails or otherwise furnishes to the Contracting Officer a written appeal addressed to the head of the agency involved. The decision of the head of the agency or his duly authorized representative for the determination of such appeals shall be final and conclusive. This provision shall not be pleaded in any suit involving a question of fact arising under this contract as limiting judicial review of any such decision to cases where fraud by such official or his representative or board is alleged. *Provided, however*, that any such decision shall be final and conclusive unless the same is fraudulent or capricious or arbitrary or so grossly erroneous as necessarily to imply bad faith or is not supported by substantial evidence. In connection with any appeal proceeding under this clause, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of his appeal. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the contract and in accordance with the Contracting Officer's decision.

(b) This "Disputes" clause does not preclude consideration of questions of law in connection with decisions provided for in paragraph (a) above. Nothing in this contract, however, shall be construed as making final the decision of any administrative official, representative, or board on a question of law. (ASPR 7 602.6(a))

7. PAYMENTS TO CONTRACTOR (1976 MAR)

(a) The Government will pay the contract price as hereinafter provided.

(b) The Government will make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates approved by the Contracting Officer. If requested by the Contracting Officer, the Contractor shall furnish a breakdown of the total contract price showing the amount included therein for each principal category of the work, in

such detail as requested, to provide a basis for determining progress payments. In the preparation of estimates the Contracting Officer, at his discretion, may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site may also be taken into consideration (1) if such consideration is specifically authorized by the contract and (2) if the Contractor furnishes satisfactory evidence that he has acquired title to such material and that it will be utilized on the work covered by this contract.

(c) In making such progress payments, there shall be retained 10 percent of the estimated amount until final completion and acceptance of the contract work. However, if the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, he may authorize such payment to be made in full without retention of a percentage. Also, whenever the work is substantially complete, the Contracting Officer shall retain an amount he considers adequate for the protection of the Government, and, at his discretion, may release to the Contractor all or a portion of any excess amount. Furthermore, on completion and acceptance of each separate building, public work, or other division of the contract, on which the price is stated separately in the contract, payment may be made therefor without retention of a percentage.

(d) All material and work covered by progress payments made shall thereupon become the sole property of the Government, but this provision shall not be construed as relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work, or as waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(e) Upon completion and acceptance of all work, the amount due the Contractor under this contract shall be paid upon the presentation of a properly executed voucher and after the Contractor shall have furnished the Government with a release of all claims against the Government arising by virtue of this contract, other than claims in stated amounts as may be specifically excepted by the Contractor from the operation of the release. If the Contractor's claim to amounts payable under the contract has been assigned under the Assignment of Claims Act of 1940, as amended (31 U.S.C. 203, 41 U.S.C. 15), a release may also be required of the assignee. (ASPR 7-602.7)

8. ASSIGNMENT OF CLAIMS (1976 OCT)

(a) Pursuant to the provisions of the Assignment of Claims Act of 1940, as amended (31 U.S.C. 203, 41 U.S.C. 15), if this contract provides for payments aggregating \$1,000 or more, claims for moneys due or to become due the Contractor from the Government under this contract may be assigned to a bank, trust company, or other financing institution, including any Federal lending agency, and may thereafter be further assigned and reassigned to any such institution. Any such assignment or reassignment shall cover all amounts payable under this contract and not already paid, and shall not be made to more than one party, except that any such assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in such financing. Unless otherwise provided in this contract, payments to assignee of any moneys due or to become due under this contract shall not, to the extent provided in said Act, as amended, be subject to reduction or setoff. (The preceding sentence applies only if this contract is made in time of war or national emergency as defined in said Act and is

with the Department of Defense, the General Services Administration, the Energy Research and Development Administration, the National Aeronautics and Space Administration, the Federal Aviation Administration, or any other department or agency of the United States designated by the President pursuant to Clause 4 of the proviso of section 1 of the Assignment of Claims Act of 1940, as amended by the Act of May 15, 1951, 65 Stat. 41.)

(b) In no event shall copies of this contract or of any plans, specifications, or other similar documents relating to work under this contract, if marked "Top Secret," "Secret," or "Confidential," be furnished to any assignee of any claim arising under this contract or to any other person not entitled to receive the same. However, a copy of any part or all of this contract so marked may be furnished, or any information contained therein may be disclosed, to such assignee upon the prior written authorization of the Contracting Officer. (ASPR 7-602.8)

9. MATERIAL AND WORKMANSHIP (1964 JUN)

(a) Unless otherwise specifically provided in this contract, all equipment, material, and articles incorporated in the work covered by this contract are to be new and of the most suitable grade for the purpose intended. Unless otherwise specifically provided in this contract, reference to any equipment, material, article, or patented process, by trade name, maker, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition, and the Contractor may, at his option, use any equipment, material, article, or process which, in the judgment of the Contracting Officer, is equal to that named. The Contractor shall furnish to the Contracting Officer for his approval the name of the manufacturer, the model number, and other identifying data and information respecting the performance, capacity, nature, and rating of the machinery and mechanical and other equipment which the Contractor contemplates incorporating in the work. When required by this contract or when called for by the Contracting Officer, the Contractor shall furnish to the Contracting Officer for approval full information concerning the material or articles which he contemplates incorporating in the work. When so directed, samples shall be submitted for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles installed or used without required approval shall be at the risk of subsequent rejection.

(b) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may, in writing, require the Contractor to remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable. (ASPR 7-602.9)

10. INSPECTION AND ACCEPTANCE (1976 OCT)

(a) All work (which term includes but is not restricted to materials, workmanship, and manufacture and fabrication of components) shall be subject to inspection and test by the Government at all reasonable times and at all places prior to acceptance. Any such inspection and test is for the sole benefit of the Government and shall not relieve the Contractor of the responsibility of providing quality control measures to assure that the work strictly complies with the contract requirements. No inspection or test by the Government shall be construed as constituting or implying acceptance. Inspection or test shall not relieve the Contractor of responsibility for damage to or loss of

the material prior to acceptance, nor in any way affect the continuing rights of the Government after acceptance of the completed work under the terms of paragraph (1) of this clause, except as hereinabove provided.

(b) The Contractor shall, without charge, replace any material or correct any workmanship found by the Government not to conform to the contract requirements, unless in the public interest the Government consents to accept such material or workmanship with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(c) If the Contractor does not promptly replace rejected material or correct rejected workmanship, the Government (1) may, by contract or otherwise, replace such material or correct such workmanship and charge the cost thereof to the Contractor, or (2) may terminate the Contractor's right to proceed in accordance with the clause of this contract entitled "Termination for Default - Damages for Delay - Time Extensions."

(d) The Contractor shall furnish promptly, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspection and test as may be required by the Contracting Officer. All inspection and test by the Government shall be performed in such manner as not unnecessarily to delay the work. Special, full size, and performance tests shall be performed as described in this contract. The Government reserves the right to charge to the Contractor any additional cost of inspection or test when material or workmanship is not ready at the time specified by the Contractor for inspection or test or when reinspection or retest is necessitated by prior rejection.

(e) Should it be considered necessary or advisable by the Government at any time before acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall, on request, promptly furnish all necessary facilities, labor and material. If such work is found to be defective or nonconforming in any material respect, due to the fault of the Contractor or his subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, an equitable adjustment shall be made in the contract price to compensate the Contractor for the additional services involved in such examination and reconstruction and, if completion of the work has been delayed thereby, he shall, in addition, be granted a suitable extension of time.

(f) Unless otherwise provided in this contract, acceptance by the Government shall be made as promptly as practicable after completion and inspection of all work required by this contract, or that portion of the work that the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except as regards latent defects, fraud, or such gross mistakes as may amount to fraud or as regards the Government's rights under any warranty or guarantee. (ASPR 7-602.11)

11. SUPERINTENDENCE BY CONTRACTOR (1976 OCT)

The Contractor, at all times during performance and until the work is completed and accepted, shall give his personal superintendence to the work or have on the work a competent superintendent, satisfactory to the Contracting Officer and with authority to act for the Contractor. (ASPR 7-602.12)

12. PERMITS AND RESPONSIBILITIES (1964 JUN)

The Contractor shall, without additional expense to

the Government, be responsible for obtaining any necessary licenses and permits and for complying with any applicable Federal, State, and municipal laws, codes, and regulations, in connection with the prosecution of the work. He shall be similarly responsible for all damages to persons or property that occur as a result of his fault or negligence. He shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. He shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire construction work, except for any completed unit of construction thereof which theretofore may have been accepted. (ASPR 7-602.13)

13. CONDITIONS AFFECTING THE WORK (1964 JUN)

The Contractor shall be responsible for having taken steps reasonably necessary to ascertain the nature and location of the work and the general and local conditions which can affect the work or the cost thereof. Any failure by the Contractor to do so will not relieve him from responsibility for successfully performing the work without additional expense to the Government. The Government assumes no responsibility for any understanding or representations concerning conditions made by any of its officers or agents prior to the execution of this contract, unless such understanding or representations by the Government are expressly stated in the contract. (ASPR 7-602.14)

14. OTHER CONTRACTS (1964 JUN)

The Government may undertake or award other contracts for additional work and the Contractor shall fully cooperate with such other contractors and Government employees and carefully fit his own work to such additional work as may be directed by the Contracting Officer. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by Government employees. (ASPR 7-602.15)

15. SHOP DRAWINGS (1976 OCT)

(a) The term "shop drawings" includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the contract.

(b) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate his approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate his approval or disapproval of the shop drawings and if not approved as submitted shall indicate his reasons therefor. Any work done prior to such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (c) below.

(c) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation(s), he shall issue an appropriate contract

modification, except that, if the variation is minor and does not involve a change in price or in time of performance, a modification need not be issued.

(d) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated herein) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated herein) of all shop drawings will be retained by the Contracting Officer and one set will be returned to the Contractor. (ASPR 7-602.54(a))

16. USE AND POSSESSION PRIOR TO COMPLETION (1976 OCT)

The Government shall have the right to take possession of or use any completed or partially completed part of the work. Prior to such possession or use, the Contracting Officer shall furnish the Contractor an itemized list of work remaining to be performed or corrected on such portions of the project as are to be possessed or used by the Government, *provided* that failure to list any item of work shall not relieve the Contractor of responsibility for compliance with the terms of the contract. Such possession or use shall not be deemed an acceptance of any work under the contract. While the Government has such possession or use, the Contractor, notwithstanding the provisions of the clause of this contract entitled "Permits and Responsibilities," shall be relieved of the responsibility for the loss or damage to the work resulting from the Government's possession or use. If such prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment in the contract price or the time of completion will be made and the contract shall be modified in writing accordingly. (ASPR 7-602.39)

17. SUSPENSION OF WORK (1968 FEB)

(a) The Contracting Officer may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as he may determine to be appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted by an act of the Contracting Officer in the administration of this contract, or by his failure to act within the time specified in this contract (or if no time is specified, within a reasonable time), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by such unreasonable suspension, delay, or interruption and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent (1) that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor or (2) for which an equitable adjustment is provided for or excluded under any other provision of this contract.

(c) No claim under this clause shall be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of such suspension, delay, or interruption, but not later than the date of final payment under the contract. (ASPR 7-602.46)

18. TERMINATION FOR CONVENIENCE OF

THE GOVERNMENT CONSTRUCTION (1974 APR)

(a) The performance of work under this contract may be terminated by the Government in accordance with this clause in whole, or from time to time in part, whenever the Contracting Officer shall determine that such termination is in the best interest of the Government. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which performance of work under the contract is terminated, and the date upon which such termination becomes effective.

(b) After receipt of a Notice of Termination, and except as otherwise directed by the Contracting Officer, the Contractor shall:

- (i) stop work under the contract on the date and to the extent specified in the Notice of Termination;
- (ii) place no further orders or subcontracts for materials, services or facilities, except as may be necessary for completion of such portion of the work under the contract as is not terminated;
- (iii) terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination;
- (iv) assign to the Government, in the manner, at the times, and to the extent directed by the Contracting Officer, all of the right, title, and interest of the Contractor under the orders and subcontracts so terminated, in which case the Government shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts;
- (v) settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval or ratification of the Contracting Officer, to the extent he may require, which approval or ratification shall be final for all the purposes of this clause;
- (vi) transfer title and deliver to the Government, in the manner, at the times, and to the extent, if any, directed by the Contracting Officer, (A) the fabricated or unfabricated parts, work in process, completed work supplies, and other material produced as a part of, or acquired in connection with the performance of, the work terminated by the Notice of Termination, and (B) the completed or partially completed plans, drawings, information, and other property which, if the contract had been completed, would have been required to be furnished to the Government;
- (vii) use his best efforts to sell, in the manner, at the times, to the extent, and at the price or prices directed or authorized by the Contracting Officer, any property of the types referred to in (vi) above; *provided*, however, that the Contractor (A) shall not be required to extend credit to any purchaser, and (B) may acquire any such property under the conditions prescribed by and at a

price or prices approved by the Contracting Officer; and *provided further* that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the Government to the Contractor under this contract or shall otherwise be credited to the price or cost of the work covered by this contract or paid in such other manner as the Contracting Officer may direct;

- (viii) complete performance of such part of the work as shall not have been terminated by the Notice of Termination; and
- (ix) take such action as may be necessary, or as the Contracting Officer may direct, for the protection and preservation of the property related to this contract which is in the possession of the Contractor and in which the Government has or may acquire an interest.

At any time after expiration of the plant clearance period, as defined in Section VIII, Armed Services Procurement Regulation, as it may be amended from time to time, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of any or all items of termination inventory not previously disposed of, exclusive of items the disposition of which has been directed or authorized by the Contracting Officer, and may request the Government to remove such items or enter into a storage agreement covering them. Not later than fifteen (15) days thereafter, the Government will accept title to such items and remove them or enter into a storage agreement covering the same; *provided*, that the list submitted shall be subject to verification by the Contracting Officer upon removal of the items, or if the items are stored, within forty-five (45) days from the date of submission of the list, and any necessary adjustment to correct the list as submitted shall be made prior to final settlement.

(c) After receipt of a Notice of Termination, the Contractor shall submit to the Contracting Officer his termination claim, in the form and with certification prescribed by the Contracting Officer. Such claim shall be submitted promptly but in no event later than one year from the effective date of termination, unless one or more extensions in writing are granted by the Contracting Officer, upon request of the Contractor made in writing within such one year period or authorized extension thereof. However, if the Contracting Officer determines that the facts justify such action, he may receive and act upon any such termination claim at any time after such one year period or any extension thereof. Upon failure of the Contractor to submit his termination claim within the time allowed, the Contracting Officer may determine, on the basis of information available to him, the amount, if any, due to the Contractor by reason of the termination and shall thereupon pay to the Contractor the amount so determined.

(d) Subject to the provisions of paragraph (c), the Contractor and the Contracting Officer may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of work pursuant to this clause, which amount or amounts may include a reasonable allowance for profit on work done; *provided*, that such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the contract price of work not terminated. The contract shall be

amended accordingly, and the Contractor shall be paid the agreed amount. Nothing in paragraph (e) of this clause, prescribing the amount to be paid to the Contractor in the event of failure of the Contractor and the Contracting Officer to agree upon the whole amount to be paid to the Contractor by reason of the termination of work pursuant to this clause, shall be deemed to limit, restrict, or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to the Contractor pursuant to this paragraph (d).

(e) In the event of the failure of the Contractor and the Contracting Officer to agree, as provided in paragraph (d), upon the whole amount to be paid to the Contractor by reason of the termination of work pursuant to this clause, the Contracting Officer shall pay to the Contractor the amounts determined by the Contracting Officer as follows, but without duplication of any amounts agreed upon in accordance with paragraph (d):

- (i) with respect to all contract work performed prior to the effective date of the Notice of Termination, the total (without duplication of any items) of

- (A) the cost of such work;
- (B) the cost of settling and paying claims arising out of the termination of work under subcontracts or orders as provided in paragraph (b)(v) above, exclusive of the amounts paid or payable on account of supplies or materials delivered or services furnished by the subcontractor prior to the effective date of the Notice of Termination of Work under this contract, which amounts shall be included in the cost on account of which payment is made under (A) above; and

- (C) a sum, as profit on (A) above, determined by the Contracting Officer pursuant to 8-303 of the Armed Services Procurement Regulation, in effect as of the date of execution of this contract, to be fair and reasonable; *provided*, however, that if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, no profit shall be included or allowed under this subdivision (C) and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated rate of loss; and

- (ii) the reasonable cost of the preservation and protection of property incurred pursuant to paragraph (b)(ix), and any other reasonable cost incidental to termination of work under this contract, including expense incidental to the determination of the amount due to the Contractor as the result of the termination of work under this contract.

The total sum to be paid to the Contractor under (i) above shall not exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the contract price of work not terminated. Except for normal spoilage, and except to the extent that the Government shall have otherwise expressly assumed the

risk of loss, there shall be excluded from the amounts payable to the Contractor under (i) above, the fair value, as determined by the Contracting Officer, of property which is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government, or to a buyer pursuant to paragraph (b)(vii).

(f) Costs claimed, agreed to, or determined pursuant to (c), (d), (e), and (i) hereof shall be in accordance with Section XV of the Armed Services Procurement Regulation as in effect on the date of this contract.

(g) The Contractor shall have the right of appeal, under the clause of this contract entitled "Disputes", from any determination made by the Contracting Officer under paragraph (c), (e), or (i) hereof, except that if the Contractor has failed to submit his claim within the time provided in paragraph (c) or (i) hereof, and has failed to request extension of such time, he shall have no such right of appeal. In any case where the Contracting Officer has made a determination of the amount due under paragraph (c), (e) or (i) hereof, the Government shall pay to the Contractor the following: (i) if there is no right of appeal hereunder or if no timely appeal has been taken, the amount so determined by the Contracting Officer, or (ii) if an appeal has been taken, the amount finally determined on such appeal.

(h) In arriving at the amount due the Contractor under this clause there shall be deducted (i) all unliquidated advance or other payments on account theretofore made to the Contractor, applicable to the terminated portion of this contract, (ii) any claim which the Government may have against the Contractor in connection with this contract, and (iii) the agreed price for, or the proceeds of sale of, any materials, supplies, or other things acquired by the Contractor or sold, pursuant to the provisions of this clause, and not otherwise recovered by or credited to the Government.

(i) If the termination hereunder be partial, the Contractor may file with the Contracting Officer a claim for an equitable adjustment of the price or prices specified in the contract relating to the continued portion of the contract (the portion not terminated by the Notice of Termination), and such equitable adjustment as may be agreed upon shall be made in such price or prices. Any claim by the Contractor for an equitable adjustment under this clause must be asserted within ninety (90) days from the effective date of the termination notice, unless an extension is granted in writing by the Contracting Officer.

(j) The Government may from time to time, under such terms and conditions as it may prescribe, make partial payments and payments on account against costs incurred by the Contractor in connection with the terminated portion of this contract whenever in the opinion of the Contracting Officer the aggregate of such payments shall be within the amount to which the Contractor will be entitled hereunder. If the total of such payments is in excess of the amount finally agreed or determined to be due under this clause, such excess shall be payable by the Contractor to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41, 85 STAT 97 for the Renegotiation Board, for the period from the date such excess payment is received by the Contractor to the date on which such excess is repaid to the Government; provided, however, that no interest shall be charged with respect to any such excess payment attributable to a reduction in the Contractor's claim by reason of retention or other disposition of termination inventory until ten days after the date of such retention or disposition, or such later date as determined by the Contracting Officer by reason of

the circumstances.

(k) Unless otherwise provided for in this contract, or by applicable statute, the Contractor shall from the effective date of termination until the expiration of three years after final settlement under this contract preserve and make available to the Government at all reasonable times at the office of the Contractor but without direct charge to the Government, all his books, records, documents and other evidence bearing on the costs and expenses of the Contractor under this contract and relating to the work terminated hereunder, or, to the extent approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions thereof. (ASPR 7-602.29(a))

19. PAYMENT OF INTEREST ON CONTRACTORS' CLAIMS (1976 JUL)

(a) If an appeal is filed by the Contractor from a final decision of the Contracting Officer under the "Disputes" clause of this contract, denying a claim arising under the contract, simple interest on the amount of the claim finally determined owed by the Government shall be payable to the Contractor. Such interest shall be at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41, 85 STAT 97, from the date the Contractor furnishes to the Contracting Officer his written appeal under the "Disputes" clause of this contract, to the date of (i) a final judgment by a court of competent jurisdiction, or (ii) mailing to the Contractor of a supplemental agreement for execution either confirming completed negotiations between the parties or carrying out a decision of a board of contract appeals.

(b) Notwithstanding (a) above, (i) interest shall be applied only from the date payment was due, if such date is later than the filing of appeal; and (ii) interest shall not be paid for any period of time that the Contracting Officer determines the Contractor has unduly delayed in pursuing his remedies before a board of contract appeals or a court of competent jurisdiction. (ASPR 7-104.82)

20. PRICING OF ADJUSTMENTS (1970 JUL)

When costs are a factor in any determination of a contract price adjustment pursuant to the "Changes" clause or any other provision of this contract, such costs shall be in accordance with Section XV of the Armed Services Procurement Regulation as in effect on the date of this contract. (ASPR 7-103.26)

21. PATENT INDEMNITY (1964 JUN)

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any Letters Patent of the United States (except Letters Patent issued upon an application which is now or may hereafter be, for reasons of national security, ordered by the Government to be kept secret or otherwise withheld from issue) arising out of the performance of this contract or out of the use or disposal by or for the account of the Government of supplies furnished or construction work performed hereunder. (ASPR 7-602.16(a))

22. ADDITIONAL BOND SECURITY (1976 OCT)

If any surety upon any bond furnished in connection with this contract becomes unacceptable to the Government, or if any such surety fails to furnish reports as to his financial condition from time to time as requested by the Government, or if the contract price is increased to such an extent that the penal sum of any bond becomes

inadequate in the opinion of the Contracting Officer, the Contractor shall promptly furnish such additional security as may be required from time to time to protect the interests of the Government and of persons supplying labor or materials in the prosecution of the work contemplated by this contract. (ASPR 7-602.17)

23. EXAMINATION OF RECORDS BY COMPTROLLER GENERAL. (1975 JUN)

(a) This clause is applicable if the amount of this contract exceeds \$10,000 and was entered into by means of negotiation, including small business restricted advertising but is not applicable if this contract was entered into by means of formal advertising.

(b) The Contractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under this contract or such lesser time specified in either Appendix M of the Armed Services Procurement Regulation or the Federal Procurement Regulations Part 1-20, as appropriate, have access to and the right to examine any directly pertinent books, documents, papers, and records of the Contractor involving transactions related to this contract.

(c) The Contractor further agrees to include in all his subcontracts hereunder a provision to the effect that the subcontractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under the subcontract or such lesser time specified in either Appendix M of the Armed Services Procurement Regulation or the Federal Procurement Regulations Part 1-20, as appropriate, have access to and the right to examine any directly pertinent books, documents, papers, and records of such subcontractor, involving transactions related to the subcontract. The term "subcontract" as used in this clause excludes (i) purchase orders not exceeding \$10,000 and (ii) subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.

(d) The periods of access and examination described in (b) and (c) above for records which relate to (i) appeals under the "Disputes" clause of this contract, (ii) litigation or the settlement of claims arising out of the performance of this contract, or (iii) costs and expenses of this contract as to which exception has been taken by the Comptroller General or any of his duly authorized representatives, shall continue until such appeals, litigation, claims or exceptions have been disposed of. (ASPR 7-104.15)

24. BUY AMERICAN ACT (1966 OCT)

(a) *Agreement.* In accordance with the Buy American Act (41 U.S.C. 10a-10d), the Contractor agrees that only domestic construction material will be used (by the Contractor, subcontractors, materialmen, and suppliers) in the performance of this contract, except for nondomestic construction material listed in the "Nondomestic Construction Materials" clause, if any, of this contract.

(b) *Domestic construction material.* "Construction material" means any article, material, or supply brought to the construction site for incorporation in the building or work. "An unmanufactured construction material is a 'domestic construction material' if it has been mined or produced in the United States. A manufactured construction material is a 'domestic construction material' if it has been manufactured in the United States and if the cost of its components which have been mined, produced, or manufactured in the United States exceeds 50 percent of

the cost of all its components. "Component" means any article, material, or supply directly incorporated in a construction material.

(c) *Domestic component.* A component shall be considered to have been "mined, produced, or manufactured in the United States" (regardless of its source in fact) if the article, material, or supply in which it is incorporated was manufactured in the United States and the component is of a class or kind determined by the Government to be not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality. (ASPR 7-602.20)

25. EQUAL OPPORTUNITY (1976 JUL)

(The following clause is not applicable if this contract is exempt under ASPR 12-805. Exemptions include contracts and subcontracts not exceeding \$10,000, and work under contracts and subcontracts which is to be performed outside the United States by employees who were not recruited within the United States. The requirements of paragraph (3) of the clause shall be satisfied whenever the prime contractor or subcontractor posts copies of the notification prescribed by or pursuant to paragraph (1) of the clause (ASPR 12-804(e)(2)). During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this Equal Opportunity clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided by the agency Contracting Officer, advising the labor union or workers' representative of the contractor's commitments under this Equal Opportunity clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The Contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, and by the rules, regulations, and orders of the Secretary of Labor or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

(6) In the event of the Contractor's noncompliance with the Equal Opportunity clause of this contract or with any of the said rules, regulations, or orders, this contract

may be canceled, terminated or suspended in whole or in part, and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965 as amended by Executive Order No. 11375 of October 13, 1967, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law. *

(7) The Contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance. *Provided*, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States. (ASPR 7-103.18(a))

26. COVENANT AGAINST CONTINGENT FEES (1958 JAN)

The contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this contract without liability or in its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage or contingent fee. (ASPR 7-103.20)

27. OFFICIALS NOT TO BENEFIT (1949 JUL)

No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit. (ASPR 7-103.19)

28. CONVICT LABOR (1975 OCT)

In connection with the performance of work under this contract, the Contractor agrees not to employ any person undergoing sentence of imprisonment except as provided by Public Law 89-176, September 10, 1965 (18 U.S.C. 4082(c)(2)) and Executive Order 11755, December 29, 1973. (ASPR 7-104.17)

29. UTILIZATION OF SMALL BUSINESS CONCERNS (1958 JAN)

(a) It is the policy of the Government as declared by the Congress that a fair proportion of the purchases and contracts for supplies and services for the Government be placed with small business concerns.

(b) The Contractor agrees to accomplish the maximum amount of subcontracting to small business concerns that the Contractor finds to be consistent with

the efficient performance of this contract. (ASPR 7-104.14(a))

30. UTILIZATION OF MINORITY BUSINESS ENTERPRISES (1971 NOV)

(a) It is the policy of the Government that Minority Business Enterprises shall have the maximum practicable opportunity to participate in the performance of Government contracts.

(b) The Contractor agrees to use his best efforts to carry out this policy in the award of his subcontracts to the fullest extent consistent with the efficient performance of this contract. As used in this contract, the term "minority business enterprise" means a business, at least 50 percent of which is owned by minority group members or, in case of publicly owned businesses, at least 51 percent of the stock of which is owned by minority group members. For the purposes of this definition, minority group members are Negroes, Spanish-speaking American persons, American Orientals, American Indians, American Eskimos, and American Aleuts. Contractors may rely on written representations by subcontractors regarding their status as minority business enterprises in lieu of an independent investigation. (ASPR 7-104.36(a))

31. FEDERAL, STATE, AND LOCAL TAXES (1971 NOV)

(a) Except as may be otherwise provided in this contract, the contract price includes all applicable Federal, State, and local taxes and duties.

(b) Nevertheless, with respect to any Federal excise tax or duty on the transactions or property covered by this contract, if a statute, court decision, written ruling, or regulation takes effect after the contract date, and -

(1) results in the Contractor being required to pay or bear the burden of any such Federal excise tax or duty or increase in the rate thereof which would not otherwise have been payable on such transactions or property, the contract price shall be increased by the amount of such tax or duty or rate increase, *provided* the Contractor warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price as a contingency reserve or otherwise; or

(2) results in the Contractor not being required to pay or bear the burden of, or in his obtaining a refund or drawback of, any such Federal excise tax or duty which would otherwise have been payable on such transactions or property or which was the basis of an increase in the contract price, the contract price shall be decreased by the amount of the relief, refund, or drawback, or that amount shall be paid to the Government, as directed by the Contracting Officer. The contract price shall be similarly decreased if the Contractor, through his fault or negligence or his failure to follow instructions of the Contracting Officer, is required to pay or bear the burden of, or does not obtain a refund or drawback of, any such Federal excise tax or duty.

(c) Paragraph (b) above shall not be applicable to social security taxes or to any other employment tax.

(d) No adjustment of less than \$100 shall be made in the contract price pursuant to paragraph (b) above.

(e) As used in paragraph (b) above, the term "contract date" means the date set for bid opening, or if this is a negotiated contract, the contract date. As to additional supplies or services procured by modification to this contract, the term "contract date" means the date of such modification.

(f) Unless there does not exist any reasonable basis to sustain an exemption, the Government upon the

request of the Contractor shall, without further liability, furnish evidence appropriate to establish exemption from any Federal, State, or local tax; *provided that, evidence appropriate to establish exemption from any Federal excise tax or duty which may give rise to either an increase or decrease in the contract price will be furnished only at the discretion of the Government.*

(g) The Contractor shall promptly notify the Contracting Officer of matters which will result in either an increase or decrease in the contract price and shall take action with respect thereto as directed by the Contracting Officer. (ASPR 7-103.10(a))

32. DAVIS-BACON ACT (40 U.S.C. 276a to a-7)(1977 DEC)

(If this contract is with a State or political subdivision thereof, the Contractor agrees to comply with the requirements of the Contract Work Hours Standards Act and to insert this clause in all subcontracts hereunder with private persons or firms)

(a) All mechanics and laborers employed or working directly upon the site of the work shall be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Copeland Regulations, (29 CFR, Part 3)), the full amounts due at time of payment computed at wage rates not less than the aggregate of the basic hourly rates and the rates of payments, contributions, or costs for any fringe benefits contained in the wage determination decision of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor or subcontractor and such laborers and mechanics. A copy of such wage determination decision shall be kept posted by the Contractor at the site of the work in a prominent place where it can be easily seen by the workers. The term *mechanics and laborers* shall be deemed to include apprentices and trainees not covered by an approved program as provided by the apprentice and trainee clause of the contract.

(b) The Contractor may discharge his obligation under this clause to workers in any classification for which the wage determination decision contains:

(1) Only a basic hourly rate of pay, by making payment at not less than such basic hourly rate, except as otherwise provided in the Copeland Regulations. (29 CFR, Part 3); or

(2) Both a basic hourly rate of pay and fringe benefits payments, by making payment in cash, by irrevocably making contributions pursuant to a fund, plan, or program for, and/or by assuming an enforceable commitment to bear the cost of, bona fide fringe benefits contemplated by the Davis-Bacon Act, or by any combination thereof. Contributions made, or costs assumed, on other than a weekly basis shall be considered as having been constructively made or assumed, during a weekly period to the extent that they apply to such period. Where a fringe benefit is expressed in a wage determination in any manner other than as an hourly rate and the Contractor pays a cash equivalent or provides an alternative fringe benefit, he shall furnish information with his payrolls showing how he determined that the cost incurred to make the cash payment or to provide the alternative fringe benefit is equal to the cost of the wage determination fringe benefit. In any case where the Contractor provides a fringe benefit different from any contained in the wage determination, he shall similarly show how he arrived at the hourly rate shown therefor. In the event of disagreement between or among the interested parties as to an equivalent

of any fringe benefit, the Contracting Officer shall submit the question, together with his recommendation, to the Secretary of Labor for final determination.

(c) The assumption of an enforceable commitment to bear the cost of fringe benefits, or the provision of any fringe benefits not expressly listed in section 1(b)(2) of the Davis-Bacon Act or in the wage determination decision forming a part of the contract, may be considered as payment of wages only with the approval of the Secretary of Labor pursuant to a written request by the Contractor. The Secretary of Labor may require the Contractor to set aside assets, in a separate account, to meet his obligations under any unfunded plan or program.

(d) The Contracting Officer shall require that any class of laborers or mechanics, including apprentices and trainees, which is not listed in the wage determination decision and which is to be employed under the contract shall be classified or reclassified conformably to the wage determination decision and shall report the action taken to the Secretary of Labor. If the interested parties cannot agree on the proper classification or reclassification of a particular class of laborers or mechanics, including apprentices and trainees, to be used, the Contracting Officer shall submit the question, together with his recommendation, to the Secretary of Labor for final determination.

(e) In the event it is found by the Contracting Officer that any laborer or mechanic, including all apprentices and trainees, employed by the Contractor or any subcontractor directly on the site of the work covered by this contract has been or is being paid at a rate of wages less than the rate of wages required by paragraph (a) of this clause, or by the "Apprentices and Trainees" clause of this contract, the Contracting Officer may (i) by written notice to the Government Prime Contractor terminate his right to proceed with the work, or such part of the work as to which there has been a failure to pay said required wages, and (ii) prosecute the work to completion by contract or otherwise, whereupon such Contractor and his sureties shall be liable to the Government for any excess costs occasioned the Government thereby.

(f) Paragraphs (a) through (e) of the clause shall apply to this contract to the extent that it is (i) a prime contract with the Government subject to the Davis Bacon Act or (ii) a subcontract also subject to the Davis Bacon Act under such prime contract. (ASPR 7-602.23(a)(1))

33. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION (40 U.S.C. 327-333) (1977 DEC)

(If this contract is with a State or political subdivision thereof, the Contractor agrees to comply with the requirements of the Contract Work Hours Standards Act and to insert this clause in all subcontracts hereunder with private persons or firms)

This contract is subject to the Contract Work Hours and Safety Standards Act and to the applicable rules, regulations, and interpretations of the Secretary of Labor.

(a) The Contractor shall not require or permit any laborer or mechanic, including apprentices, trainees, watchmen, and guards in any workweek in which he is employed on any work under this contract to work in excess of eight (8) hours in any calendar day or in excess of forty (40) hours in such workweek on work subject to the provisions of the Contract Work Hours and Safety Standards Act unless such laborer or mechanic, including apprentices, trainees, watchmen, and guards, receives compensation at a rate not less than one and one half times his basic rate of pay for all such hours worked in

excess of eight (8) hours in any calendar day or in excess of forty (40) hours in such workweek, whichever is the greater number of overtime hours. The "basic rate of pay," as used in this clause, shall be the amount paid per hour, exclusive of the Contractor's contribution or cost for fringe benefits and any cash payment made in lieu of providing fringe benefits, or the basic hourly rate contained in the wage determination, whichever is greater.

(b) In the event of any violation of the provisions of paragraph (a), the Contractor shall be liable to any affected employee for any amounts due, and to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including an apprentice, trainee, watchman, or guard, employed in violation of the provisions of paragraph (a) in the sum of \$10 for each calendar day on which such employee was required or permitted to be employed on such work in excess of eight (8) hours or in excess of the standard workweek of forty (40) hours without payment of the overtime wages required by paragraph (a). (ASPR 7-602.23(a)(iii))

34. APPRENTICES AND TRAINEES (1977 DEC)

(If this contract is with a State or political subdivision thereof, the Contractor agrees to comply with the requirements of the Contract Work Hours Standards Act and to insert this clause in all subcontracts hereunder with private persons or firms)

(a) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a state apprenticeship agency recognized by the Bureau, or if a person is employed in his first ninety (90) days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a state apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen in any craft classification employed on this contract shall not be greater than the ratio permitted to the Contractor as to his entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not a trainee as defined in paragraph (b) of this clause or is not registered or otherwise employed as stated above, shall be paid the wage rate determined by the Secretary of Labor for the classification of work he actually performed. The Contractor or subcontractor shall furnish to the Contracting Officer written evidence of the registration of his program and apprentices as well as the appropriate ratios and wage rates (expressed in percentages of the journeyman hourly rates), for the area of construction prior to using apprentices on the contract work. The wage rate paid apprentices shall be not less than the appropriate percentage of the journeyman's rate contained in the applicable wage determination.

(b) Trainees will be permitted to work at less than the predetermined rate for the work performed when they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification, by the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training. The ratio of trainees to journeymen on this contract shall not be greater than permitted under the plan approved by the Bureau of

Apprenticeship and Training. Every trainee must be paid at not less than the rate specified in the approved program for his level of progress. Any employee listed on the payroll at a trainee rate who is not registered and not participating in a training plan approved by the Bureau of Apprenticeship and Training shall be paid not less than the wage rate determined by the Secretary of Labor for the classification of work he actually performed. The Contractor or subcontractor shall furnish the Contracting Officer written evidence of the certification of his program, the registration of the trainee, and the ratios and wage rates prescribed in that program. In the event the Bureau of Apprenticeship and Training withdraws the approval of a training program, the Contractor shall no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(c) The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of this contract. (ASPR 7-602.23(a)(iii))

35. PAYROLLS AND BASIC RECORDS (1977 DEC)

(If this contract is with a State or political subdivision thereof, the Contractor agrees to comply with the requirements of the Contract Work Hours Standards Act and to insert this clause in all subcontracts hereunder with private persons or firms)

(a) The Contractor shall maintain payrolls and basic records relating thereto during the course of the work and shall preserve them for a period of three (3) years thereafter for all laborers and mechanics, including apprentices, trainees, watchmen, and guards, working at the site of the work. Such records shall contain the name and address of each such employee, his correct classification, rate of pay (including rates of contributions for, or costs assumed to provide, fringe benefits), daily and weekly number of hours worked, deductions made and actual wages paid. (NOTE: Watchmen and guards are reflected on payroll records for Contract Work Hours and Safety Standards Act purposes only.) Whenever the Contractor has obtained approval from the Secretary of Labor as provided in paragraph (c) of the clause entitled "Davis-Bacon Act," he shall maintain records which show the commitment, its approval, written communication of the plan or program to the laborers or mechanics affected, and the costs anticipated or incurred under the plan or program.

(b) The Contractor shall submit weekly a copy of all payrolls to the Contracting Officer. The Government Prime Contractor shall be responsible for the submission of copies of payrolls of all subcontractors. The copy shall be accompanied by a statement signed by the Contractor indicating that the payrolls are correct and complete, that the wage rates contained therein are not less than those determined by the Secretary of Labor, and that the classifications set forth for each laborer or mechanic, including apprentices and trainees, conform with the work he performed. Weekly submission of the "Statement of Compliance" required under this contract and the Copeland Regulations of the Secretary of Labor (29 CFR Part 3) shall satisfy the requirement for submission of the above statement. The Contractor shall submit also a copy of any approval by the Secretary of Labor with respect to fringe benefits which is required by paragraph (c) of the clause entitled "Davis-Bacon Act."

(c) The Contractor shall make the records required under this clause available for inspection by authorized representatives of the Contracting Officer and the Department of Labor, and shall permit such representatives

to interview employees during working hours on the job (ASPR 7-602.23(a)(iv))

36. COMPLIANCE WITH COPELAND REGULATIONS (1964 JUN)

(If this contract is with a State or political subdivision thereof, the Contractor agrees to comply with the requirements of the Contract Work Hours Standards Act and to insert this clause in all subcontracts hereunder with private persons or firms)

The Contractor shall comply with the Copeland Regulations of the Secretary of Labor (29 CFR Part 3) which are incorporated herein by reference (ASPR 7-602.23(a)(v))

37. WITHHOLDING OF FUNDS (1977 DEC)

(If this contract is with a State or political subdivision thereof, the Contractor agrees to comply with the requirements of the Contract Work Hours Standards Act and to insert this clause in all subcontracts hereunder with private persons or firms)

(a) The Contracting Officer may withhold or cause to be withheld from the Government Prime Contractor so much of the accrued payments or advances as may be considered necessary (i) to pay laborers and mechanics, including apprentices, trainees, watchmen, and guards, employed by the Contractor or any subcontractor on the work the full amount of wages required by the contract, and (ii) to satisfy any liability of the Contractor and any subcontractor for liquidated damages under paragraph (b) of the clause entitled "Contract Work Hours and Safety Standards Act—Overtime Compensation."

(b) If the Contractor or any subcontractor fails to pay any laborer, mechanic, apprentice, trainee, watchman, or guard employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Government Prime Contractor, take such action as may be necessary to cause suspension of any further payments or advances until such violations have ceased. (ASPR 7-602.23(a)(vi))

38. SUBCONTRACTS (1972 FEB)

(If this contract is with a State or political subdivision thereof, the Contractor agrees to comply with the requirements of the Contract Work Hours Standards Act and to insert this clause in all subcontracts hereunder with private persons or firms)

The Contractor agrees to insert the clauses hereof entitled "Davis-Bacon Act," "Contract Work Hours and Safety Standards Act—Overtime Compensation," "Apprentices and Trainees," "Payrolls and Basic Records," "Compliance with Copeland Regulations," "Withholding of Funds," "Subcontracts," and "Contract Termination—Debarment" in all subcontracts. The term "Contractor" as used in such clauses in any subcontract shall be deemed to refer to the subcontractor except in the phrase "Government Prime Contractor." (ASPR 7-602.23(a)(vii))

39. CONTRACT TERMINATION—DEBARMENT (1972 APR)

(If this contract is with a State or political subdivision thereof, the Contractor agrees to comply with the requirements of the Contract Work Hours Standards Act and to insert this clause in all subcontracts hereunder with private persons or firms)

A breach of the clauses hereof entitled "Davis-Bacon Act," "Contract Work Hours and Safety Standards Act—Overtime Compensation," "Apprentices and Trainees,"

"Payrolls and Basic Records," "Compliance with Copeland Regulations," "Withholding of Funds," and "Subcontracts" may be grounds for termination of the contract, and for debarment as provided in 29 CFR 5.6 (ASPR 7-602.23(a)(viii))

40. DISPUTES CONCERNING LABOR STANDARDS (1977 DEC)

(If this contract is with a State or political subdivision thereof, the Contractor agrees to comply with the requirements of the Contract Work Hours Standards Act and to insert this clause in all subcontracts hereunder with private persons or firms)

Disputes arising out of the labor standards provisions of this contract shall be subject to the Disputes clause except to the extent such disputes involve the meaning of classifications or wage rates contained in the wage determination decision of the Secretary of Labor or the applicability of the labor provisions of this contract which questions shall be referred to the Secretary of Labor in accordance with the procedures of the Department of Labor. (ASPR 7-602.23(a)(ix))

41. CONTRACTOR INSPECTION SYSTEM (1964 NOV)

The Contractor shall (i) maintain an adequate inspection system and perform such inspections as will assure that the work performed under the contract conforms to contract requirements, and (ii) maintain and make available to the Government adequate records of such inspections. (ASPR 7-602.10(a))

42. GRATUITIES (1952 MAR)

(a) The Government may, by written notice to the Contractor, terminate the right of the Contractor to proceed under this contract if it is found, after notice and hearing, by the Secretary or his duly authorized representative, that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the Contractor, or any agent or representative of the Contractor, to any officer or employee of the Government with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performing of such contract; provided, that the existence of the facts upon which the Secretary or his duly authorized representative makes such findings shall be in issue and may be reviewed in any competent court.

(b) In the event this contract is terminated as provided in paragraph (a) hereof, the Government shall be entitled (i) to pursue the same remedies against the Contractor as it could pursue in the event of a breach of the contract by the Contractor, and (ii) as a penalty in addition to any other damages to which it may be entitled by law, to exemplary damages in an amount (as determined by the Secretary or his duly authorized representative) which shall be not less than three nor more than ten times the costs incurred by the Contractor in providing any such gratuities to any such officer or employee.

(c) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract. (ASPR 7-104.16)

43. SMALL BUSINESS SUBCONTRACTING PROGRAM (MAINTENANCE, REPAIR AND CONSTRUCTION) (1976 OCT)

(The following clause is applicable if this contract is in excess of \$500,000)

(a) The Contractor agrees to establish and conduct

a small business subcontracting program which will enable small business concerns to be considered fairly as subcontractors, including suppliers, under this contract. In this connection, the Contractor shall designate an individual to (i) maintain liaison with the Government on small business matters, and (ii) administer the Contractor's Small Business Subcontracting Program.

(b) The Contractor shall submit DD Form 1140-1 each quarter in accordance with the instructions provided on the form, except that where the Contractor submits the report on a corporate basis rather than a plant basis, he may submit his reports to the Department having the responsibility for the Small Business Subcontracting Program at the corporate headquarters. The reporting requirements of this subparagraph (b) do not apply to small business contractors, small business subcontractors, or educational and nonprofit institutions.

(c) The Contractor further agrees (i) to insert the "Utilization of Small Business Concerns" clause in subcontracts which offer substantial subcontracting opportunities, and (ii) to insert in each such subcontract exceeding \$500,000 a clause conforming substantially to the language of this clause except that subcontractors shall submit DD Form 1140-1 direct to the Government addressees prescribed on the form. The Contractor will notify the Contracting Officer of the name and address of each subcontractor that will be required to submit a report on DD Form 1140-1. (ASPR 7-602.26(b))

44. RENEGOTIATION (1959 OCT)

(a) To the extent required by law, this contract is subject to the Renegotiation Act of 1951 (50 U.S.C. App. 1211, et seq.), as amended, and to any subsequent act of Congress providing for the renegotiation of contracts. Nothing contained in this clause shall impose any renegotiation obligation with respect to this contract or any subcontract hereunder which is not imposed by an act of Congress heretofore or hereafter enacted. Subject to the foregoing this contract shall be deemed to contain all the provisions required by section 104 of the Renegotiation Act of 1951, and by any such other act, without subsequent contract amendment specifically incorporating such provisions.

(b) The Contractor agrees to insert the provisions of this clause, including this paragraph (b), in all subcontracts, as that term is defined in section 103g of the Renegotiation Act of 1951, as amended. (ASPR 7-103.13(a))

45. NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (1965 JAN)

(The provisions of this clause shall be applicable only if the amount of this contract exceeds \$10,000.)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed hereunder, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(c) This clause shall be included in all subcontracts (ASPR 7-103.21)

46. AUTHORIZATION AND CONSENT (1964 MAR)

The Government hereby gives its authorization and consent (without prejudice to any rights of indemnification) for all use and manufacture, in the performance of this contract or any part hereof or any amendment hereto or any subcontract hereunder (including any lower-tier subcontract), of any invention described in and covered by a patent of the United States (i) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract, or (ii) utilized in the machinery, tools, or methods the use of which necessarily results from compliance by the Contractor or the using subcontractor with (a) specifications or written provisions now or hereafter forming a part of this contract, or (b) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a patent of the United States shall be determined solely by the provisions of the indemnity clauses, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted. (ASPR 7-103.22)

47. COMPOSITION OF CONTRACTOR (1965 JAN)

If the Contractor hereunder is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder. (ASPR 7-602.32)

48. SITE INVESTIGATION (1965 JAN)

The Contractor acknowledges that he has investigated and satisfied himself as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, river stages, tides or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during prosecution of the work. The Contractor further acknowledges that he has satisfied himself as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from information presented by the drawings and specifications made a part of this contract. Any failure by the Contractor to acquaint himself with the available information will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work. The Government assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the Government. (ASPR 7-602.33)

49. PROTECTION OF EXISTING VEGETATION, STRUCTURES, UTILITIES, AND IMPROVEMENTS (1965 JAN)

(a) The Contractor will preserve and protect all existing vegetation such as trees, shrubs, and grass on or adjacent to the site of work which is not to be removed and which does not unreasonably interfere with the construction work. Care will be taken in removing trees authorized for removal to avoid damage to vegetation to

remain in place. Any limbs or branches of trees broken during such operations or by the careless operation of equipment, or by workmen, shall be trimmed with a clean cut and painted with an approved tree pruning compound as directed by the Contracting Officer.

(b) The Contractor will protect from damage all existing improvements or utilities at or near the site of the work, the location of which is made known to him, and will repair or restore any damage to such facilities resulting from failure to comply with the requirements of this contract or the failure to exercise reasonable care in the performance of the work. If the Contractor fails or refuses to repair any such damage promptly, the Contracting Officer may have the necessary work performed and charge the cost thereof to the Contractor. (ASPR 7 602.34)

50. OPERATIONS AND STORAGE AREAS (1965 JAN)

(a) All operations of the Contractor (including storage of materials) upon Government premises shall be confined to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by his operations.

(b) Temporary buildings (storage sheds, shops, offices, etc.) may be erected by the Contractor only with the approval of the Contracting Officer, and shall be built with labor and materials furnished by the Contractor without expense to the Government. Such temporary buildings and utilities shall remain the property of the Contractor and shall be removed by him at his expense upon the completion of the work. With the written consent of the Contracting Officer, such buildings and utilities may be abandoned and need not be removed.

(c) The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways or construct and use such temporary roadways as may be authorized by the Contracting Officer. Where materials are transported in the prosecution of the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State or local law or regulation. When it is necessary to cross curbs or sidewalks, protection against damage shall be provided by the Contractor and any damaged roads, curbs, or sidewalks shall be repaired by, or at the expense of the Contractor. (ASPR 7-602.35)

51. MODIFICATION PROPOSALS -- PRICE BREAKDOWN (1968 APR)

The Contractor, in connection with any proposal he makes for a contract modification, shall furnish a price breakdown, itemized as required by the Contracting Officer. Unless otherwise directed, the breakdown shall be in sufficient detail to permit an analysis of all material, labor, equipment, subcontract, and overhead costs, as well as profit, and shall cover all work involved in the modification, whether such work was deleted, added or changed. Any amount claimed for subcontracts shall be supported by a similar price breakdown. In addition, if the proposal includes a time extension, a justification therefor shall also be furnished. The proposal, together with the price breakdown and time extension justification, shall be furnished by the date specified by the Contracting Officer. (ASPR 7 602.36)

52. SUBCONTRACTORS (1972 FEB)

Within seven days after the award of any subcontract either by himself or a subcontractor, the Contractor shall deliver to the Contracting Officer a statement setting forth

the name and address of the subcontractor and a summary description of the work subcontracted. The Contractor shall at the same time furnish a statement signed by the subcontractor acknowledging the inclusion in his subcontract of the clauses of this contract entitled "Equal Opportunity," "Davis Bacon Act," "Contract Work Hours and Safety Standards Act," "Overtime Compensation," "Apprentices and Trainees," "Payrolls and Basic Records," "Compliance with Copeland Regulations," "Withholding of Funds," "Subcontracts" and "Contract Termination Debarment." Nothing contained in this contract shall create any contractual relation between the subcontractor and the Government. (ASPR 7 602.37)

53. CLEANING UP (1965 JAN)

The Contractor shall at all times keep the construction area, including storage areas used by him, free from accumulations of waste material or rubbish and prior to completion of the work remove any rubbish from the premises and all tools, scaffolding, equipment, and materials not the property of the Government. Upon completion of the construction the Contractor shall leave the work and premises in a clean, neat and workmanlike condition satisfactory to the Contracting Officer. (ASPR 7 602.40)

54. ADDITIONAL DEFINITIONS (1965 JAN)

(a) Wherever in the specifications or upon the drawings the words "directed," "required," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the "direction," "requirement," "ordered," "designation," or "prescription," of the Contracting Officer is intended and similarly the words "approved," "acceptable," "satisfactory" or words of like import shall mean "approved by" or "acceptable to," or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(b) Where "as shown," "as indicated," "as detailed," or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provided complete in place," that is "furnished and installed." (ASPR 7 602.41)

55. ACCIDENT PREVENTION (1977 JUN)

(a) In order to provide safety controls for protection to the life and health of employees and other persons; for prevention of damage to property, materials, supplies, and equipment, and for avoidance of work interruptions in the performance of this contract, the Contractor shall comply with all pertinent provisions of Corps of Engineers Manual, EM 385-1-1, dated 1 June 1977, entitled "General Safety Requirements", as amended, and will also take or cause to be taken such additional measures as the Contracting Officer may determine to be reasonably necessary for the purpose.

(b) The Contractor will maintain an accurate record of, and will report to the Contracting Officer in the manner and on the forms prescribed by the Contracting Officer, exposure data and all accidents resulting in death, traumatic injury, occupational disease, and damage to property, materials, supplies and equipment incident to work performed under this contract.

(c) The Contracting Officer will notify the Contractor of any noncompliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses

to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

(d) Compliance with the provisions of this clause by subcontractors will be the responsibility of the Contractor.

(e) Prior to commencement of the work the Contractor will

- (1) submit in writing his proposals for effectuating this provision for accident prevention;
- (2) meet in conference with representatives of the Contracting Officer to discuss and develop mutual understandings relative to administration of the over-all safety program. (ASPR 7-602.42(a) & (b))

56. GOVERNMENT INSPECTORS (1965 JAN)

The work will be conducted under the general direction of the Contracting Officer and is subject to inspection by his appointed inspectors to insure strict compliance with the terms of the contract. No inspector is authorized to change any provision of the specifications without written authorization of the Contracting Officer, nor shall the presence or absence of an inspector relieve the Contractor from any requirements of the contract. (ASPR 7-602.43)

57. RIGHTS IN SHOP DRAWINGS (1966 APR)

(Applicable to all contracts calling for the delivery of shop drawings)

(a) Shop drawings for construction means drawings, submitted to the Government by the Construction Contractor, subcontractor or any lower tier subcontractor pursuant to a construction contract, showing in detail (i) the proposed fabrication and assembly of structural elements and (ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(b) This clause, including this paragraph (b), shall be included in all subcontracts hereunder at any tier. (ASPR 7-602.47)

58. MINORITY BUSINESS ENTERPRISES SUBCONTRACTING PROGRAM (1971 NOV)

(The following clause is applicable if this contract is in excess of \$500,000)

(a) The Contractor agrees to establish and conduct a program which will enable minority business enterprises (as defined in the clause, entitled, "Utilization of Minority Business Enterprises") to be considered fairly as subcontractors and suppliers under this contract. In this connection, the Contractor shall:

(1) Designate a liaison officer who will administer the Contractor's "Minority Business Enterprises Program."

(2) Provide adequate and timely consideration of the potentialities of known minority business enterprises in all "make-or-buy" decisions.

(3) Assure that known minority business enterprises will have an equitable opportunity to compete for subcontracts, particularly by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation of minority business enterprises.

(4) Maintain records showing (i) procedures which have been adopted to comply with the policies set forth in this clause, including the establishment of a source list of minority business enterprises, (ii) awards to minority business enterprises on the source list, and (iii) specific efforts to identify and award contracts to minority business enterprises.

(5) Include the "Utilization of Minority Business Enterprises" clause in subcontracts which offer substantial minority business enterprise subcontracting opportunities.

(6) Cooperate with the Contracting Officer in any studies and surveys of the Contractor's minority business enterprises procedures and practices that the Contracting Officer may from time to time conduct.

(7) Submit periodic reports of subcontracting to known minority business enterprises with respect to the records referred to in subparagraph (4) above, in such form and manner and at such time (not more often than quarterly) as the Contracting Officer may prescribe.

(b) The Contractor further agrees to insert, in any subcontract hereunder which may exceed \$500,000 provisions which shall conform substantially to the language of this clause, including this paragraph (b), and to notify the Contracting Officer of the names of such subcontractors. (ASPR 7-104.36(b))

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59. AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (1976 JUL)

(This clause is applicable pursuant to 41 C.F.R. 60-250, if this contract is for \$10,000 or more.)

(a) The contractor will not discriminate against any employee or applicant for employment because he or she is a disabled veteran or veteran of the Vietnam era in regard to any position for which the employee or applicant for employment is qualified. The contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veterans status in all employment practices such as the following: employment upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

(b) The contractor agrees that all suitable employment openings of the contractor which exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract and including those occurring at an establishment of the contractor other than the one wherein the contract is being performed but excluding those of independently operated corporate affiliates, shall be listed at an appropriate local office of the State employment service system wherein the opening occurs. The contractor further agrees to provide such reports to such local office regarding employment openings and hires as may be required.

State and local government agencies holding Federal contracts of \$10,000 or more shall also list all their suitable openings with the appropriate office of the State employment service, but are not required to provide those reports set forth in paragraphs (d) and (e).

(c) Listing of employment openings with the employment service system pursuant to this clause shall be made at least concurrently with the use of any other recruitment source or effort and shall involve the normal obligations which attach to the placing of a bona fide job order, including the acceptance of referrals of veterans and nonveterans. The listing of employment openings does not require the hiring of any particular job applicant or from any particular group of job applicants, and nothing herein is intended to relieve the contractor from any requirements in Executive Orders or regulations regarding nondiscrimination in employment.

(d) The reports required by paragraph (b) of this clause shall include, but not be limited to, periodic reports which shall be filed at least quarterly with the appropriate local office or, where the contractor has more than one hiring location in a State, with the central office of that

State employment service. Such reports shall indicate for each hiring location (1) the number of individuals hired during the reporting period, (2) the number of nondisabled veterans of the Vietnam era hired, (3) the number of disabled veterans of the Vietnam era hired, and (4) the total number of disabled veterans hired. The reports should include covered veterans hired for on-the job training under 38 USC 1787. The contractor shall submit a report within 30 days after the end of each reporting period wherein any performance is made on this contract identifying data for each hiring location. The contractor shall maintain at each hiring location copies of the reports submitted until the expiration of one year after final payment under the contract, during which time these reports and related documentation shall be made available, upon request, for examination by any authorized representatives of the contracting officer or of the Secretary of Labor. Documentation would include personnel records respecting job openings, recruitment and placement.

(e) Whenever the contractor becomes contractually bound to the listing provisions of this clause, it shall advise the employment service system in each State where it has establishments of the name and location of each hiring location in the State. As long as the contractor is contractually bound to these provisions and has so advised the State system, there is no need to advise the State system of subsequent contracts. The contractor may advise the State system when it is no longer bound by this contract clause.

(f) This clause does not apply to the listing of employment openings which occur and are filled outside of the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

(g) The provisions of paragraphs (b), (c), (d) and (e) of this clause do not apply to openings which the contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer union hiring arrangement. This exclusion does not apply to a particular opening once an employer decides to consider applicants outside of his own organization or employer union arrangement for that opening.

(h) As used in this clause: (1) "All suitable employment openings" includes, but is not limited to, openings which occur in the following job categories: production and nonproduction; plant and office; laborers and mechanics; supervisory and nonsupervisory; technical; and executive, administrative, and professional openings as are compensated on a salary basis of less than \$25,000 per year. This term includes full-time employment, temporary employment of more than 3 days' duration, and part-time employment. It does not include openings which the contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement nor openings in an educational institution which are restricted to students of that institution. Under the most compelling circumstances an employment opening may not be suitable for listing, including such situations where the needs of the Government cannot reasonably be otherwise supplied, where listing would be contrary to national security, or where the requirement of listing would otherwise not be for the best interest of the Government.

(2) "Appropriate office of the State employment service system" means the local office of the Federal-State national system of public employment offices with assigned responsibility for serving the area where the employment opening is to be filled, including the District of Columbia, Guam, Puerto Rico, and the Virgin Islands.

(3) "Openings which the contractor proposes to

fill from within his own organization" means employment openings for which no consideration will be given to persons outside the contractor's organization (including any affiliates, subsidiaries, and the parent companies) and includes any openings which the contractor proposes to fill from regularly established "recall" lists.

(4) "Openings which the contractor proposes to fill pursuant to a customary and traditional employer-union hiring arrangement" means employment openings which the contractor proposes to fill from union halls, which is part of the customary and traditional hiring relationship which exists between the contractor and representatives of his employees.

(i) The contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Vietnam Veterans Readjustment Act, hereinafter referred to as the "Act" (38 U.S.C. 2012).

(j) In the event of the contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(k) The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, Office of Federal Contract Compliance Programs, provided by or through the contracting officer. Such notice shall state the contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era for employment, and the rights of applicants and employees.

(l) The contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the contractor is bound by the terms of the Vietnam Era Veterans Readjustment Assistance Act, and is committed to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam Era.

(m) The contractor will include the provisions of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to the Act, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance. (ASPR 7-103.27)

60. VALUE ENGINEERING INCENTIVE (1977 AUG)

(The following clause is applicable if this contract is in excess of \$100,000)

(a) Application. This clause applies to a Contractor developed and documented Value Engineering Change Proposal (VECP) which:

- (i) requires a change to this contract to implement the VECP; and
- (ii) reduces the contract price without impairing essential function or characteristics, provided that it is not based solely on a change in deliverable end item quantities.

(b) Documentation. As a minimum, the following information shall be submitted by the contractor with each VECP:

- (i) a description of the difference between the existing contract requirement and the proposed change, and the

comparative advantages and disadvantages of each, justification where function or characteristics of a work item is being altered, and the effect of the change on the performance of the end item;

- (u) an analysis and itemization of the requirements of the contract which must be changed if the VECP is accepted and a recommendation as to how to make each such change (e.g., a suggested specification revision);
- (iii) a separate detailed cost estimate for both the existing contract requirement and the proposed change to provide an estimate of the reduction in costs, if any, that will result from acceptance of the VECP, taking into account the costs of development and implementation by the Contractor (including any amount attributable to subcontracts in accordance with paragraph (f) below);
- (iv) a prediction of any effects the proposed change would have on related costs to the Military Department such as Government furnished property costs, and costs of maintenance and operation;
- (v) a statement of the time by which a change order adopting the VECP must be issued so as to obtain the maximum cost reduction during the remainder of this contract, noting any effect on the contract completion time or delivery schedule; and
- (vi) identification of any previous submission of the VECP, including the dates submitted, the agencies involved, the numbers of the Government contracts involved, and the previous actions by the Government, if known.

(c) Submission. To expedite a determination, VECPs shall be submitted to the Resident Engineer at the worksite with a copy to the Contracting Officer. Proposals shall be processed expeditiously; however, the Government shall not be liable for any delay in acting upon any proposal submitted pursuant to this clause. If the evaluation period is likely to exceed 45 calendar days, the PCO shall promptly notify the Contractor of the estimated decision date and provide the reasons for the additional time required. The Contractor has the right to withdraw, in whole or in part, any VECP not accepted by the Government within the period specified in the VECP.

(d) Acceptance. The Contracting Officer may accept, in whole or in part, by contract modification any VECP submitted pursuant to this clause. The Contracting Officer may accept the VECP even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall remain obligated to perform in accordance with this contract. Contract modifications made pursuant to this clause will so state. The decision of the Contracting Officer as to the acceptance of any VECP under this contract shall be final and shall not be subject to the "Disputes" clause of this contract.

(e) Sharing. If a VECP submitted by the Contractor pursuant to this clause is accepted, the contract price shall be adjusted without regard to profit in accordance with the following provisions:

- (i) Definition:
 - (A) Instant contract savings to the Contractor (ICS) are the estimated reduction in the Contractor's cost

of performance resulting from the acceptance of the VECP. The proposed cost reduction includes estimated allowable Contractor development and implementation costs (CC). The Contractor's development and implementation costs include any subcontractor development and implementation costs (see (f) below). For purposes of this clause, Contractor development costs are those costs incurred after the Contractor has identified a specific VE project and prior to acceptance and implementation by the Government.

(B) Government Costs (GC) are those DOD costs which directly result from development and implementation of the VECP, such as test and evaluation of the VECP.

(ii) Calculations and Actions.
Multiply ICS by 45% and GC by 55%.
Add these two results, e.g., (.45 ICS + .55 GC) and subtract from the contract price.

(f) Subcontracts. The Contractor shall include appropriate VE arrangements in any subcontract of \$50,000 or greater, and may include such arrangements in contracts of lesser value. To compute any adjustment in the contract price under paragraph (e) above, the Contractor's cost of development and implementation of a VECP which is accepted under this contract shall include any development and implementation costs of a subcontractor which clearly pertains to such VECP, but shall exclude any VE incentive payments which the Contractor may make to a subcontractor. The Contractor may make whatever VE incentive payment arrangements he chooses with his subcontractors, *provided* that any payments to subcontractors under such arrangements are made from the Contractor's, and not the Government's, share of the savings resulting from the VECP.

(g) Data. The Contractor may restrict the Government's right to use any sheet of a VECP or of the supporting data, submitted pursuant to this clause, in accordance with the terms of the following legend if it is marked on such sheet:

"This data furnished pursuant to the Value Engineering Incentive clause of contract _____ shall not be disclosed outside the Government, or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a VECP submitted under said clause. This restriction does not limit the Government's right to use information contained in this data if it is or has been obtained, or is otherwise available, from the Contractor or from another source, without limitations."

In the event of acceptance of a VECP, the Contractor hereby grants to the Government unlimited rights, as defined in the clause of ASPR 7-104.9(a), in the VECP and supporting data, except that, with respect to data which qualifies as and is submitted as limited rights

technical data in accordance with the clause of ASPR 7-104.9(a), the Government shall have the rights specified in the contract modification referred to in paragraph (d) hereof and the data shall be appropriately marked. (ASPR 7-602.50)

61. AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS (1976 MAY)

(a) The contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

(b) The contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(c) In the event of the contractor's noncompliance with the requirements of this clause, action for noncompliance may be taken in accordance with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.

(d) The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, provided by or through the contracting officer. Such notices shall state the contractor's obligation under the law to take affirmative action to employ and advance in employment qualified handicapped employees and applicants for employment, and the rights of applicants and employees.

(e) The contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the contractor is bound by the terms of section 503 of the Rehabilitation Act of 1973, and is committed to take affirmative action to employ and advance in employment physically and mentally handicapped individuals.

(f) The contractor will include the provisions of this clause in every subcontract or purchase order of \$2,500 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to section 503 of the Act, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance. (ASPR 7-103.28)

62. CLEAN AIR AND WATER (1975 OCT)

(Applicable only if the contract exceeds \$100,000, or the contracting officer has determined that orders under an indefinite quantity contract in any one year will exceed \$100,000, or a facility to be used has been the subject of a conviction under the Clean Air Act (42 U.S.C. 1857c-8(c)(1)) or the Federal Water Pollution Control Act (33 U.S.C. 1319(c)) and is listed by EPA, or the contract is not otherwise exempt.)

(a) The Contractor agrees as follows:

(i) To comply with all the requirements of section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et seq., as amended by Public Law 91-604) and section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251) as amended by Public Law 92-500), respectively, relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in section 114 and section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this contract;

(ii) That no portion of the work required by this prime contract will be performed in a facility listed on the Environmental Protection Agency List of Violating Facilities on the date this contract was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing;

(iii) To use his best efforts to comply with clean air standards and clean water standards at the facilities in which the contract is being performed; and

(iv) To insert the substance of the provisions of this clause in any nonexempt subcontract, including this paragraph (iv).

(b) The terms used in this clause have the following meanings.

(i) The term "Air Act" means the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Public Law 91-604).

(ii) The term "Water Act" means Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Public Law 92-500).

(iii) The term "clean air standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation plan as described in section 110(d) of the Clean Air Act (42 U.S.C. 1857c-5(d)), an approved implementation procedure or plan under section 111(c) or section 111(d), respectively, of the Air Act (42 U.S.C. 1857c-6(c) or (d)), or an approved implementation procedure under section 112(d) of the Air Act (42 U.S.C. 1857c-7(d)).

(iv) The term "clean water standards" means any enforceable limitation, control, condition, prohibition, standard or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a State under an approved program, as authorized by section 402 of the Water Act (33 U.S.C. 1342), or by a local government to ensure compliance with pretreatment regulations as required by section 307 of the Water Act (33 U.S.C. 1317).

(v) The term "compliance" means compliance with clean air or water standards. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an air or water pollution control agency in accordance with the requirement of the Air Act or Water Act and regulations issued pursuant thereto.

(vi) The term "facility" means any building, plant, installation, structure, mine, vessel or other floating craft, location, or site of operations, owned, leased, or supervised by a contractor, subcontractor, to be utilized in the performance of a contract or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be a facility except where the Director, Office of Federal Activities,

Environmental Protection Agency, determines that independent facilities are collocated in one geographical area.

(vii) The term "nonexempt contract or subcontract" means a contract or subcontract of more than \$100,000 which is not otherwise exempted pursuant to the EPA regulations implementing the Air Act and Water Act (40 CFR 15.5), as further implemented in ASPR 1-2302.4 or in FPR 1-1.2302.4 (whichever is applicable) and the procedures of the Department awarding the contract. (ASPR 7-103.29)

63. NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (1958 SEP)

(a) Whenever the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this contract, the Contractor shall immediately give notice thereof, including all relevant information with respect thereto, to the Contracting Officer.

(b) The Contractor agrees to insert the substance of this clause, including this paragraph (b), in any subcontract hereunder as to which a labor dispute may delay the timely performance of this contract; except that each such subcontract shall provide that in the event its timely performance is delayed or threatened by, delay by any actual or potential labor dispute, the subcontractor shall immediately notify his next higher tier subcontractor, or the prime contractor, as the case may be, of all relevant information with respect to such dispute. (ASPR 7-104.4)

64. CONTRACT PRICES - BIDDING SCHEDULE (1968 APR)

(The following clause is applicable to contracts containing unit prices)

Payment for the various items listed in the Bidding Schedule shall constitute full compensation for furnishing all plant, labor, equipment, appliances, and materials, and for performing all operations required to complete the work in conformity with the drawings and specifications. All costs for work not specifically mentioned in the Bidding Schedule shall be included in the contract prices for the items listed. (ASPR 7-603.5)

65. PRIORITIES, ALLOCATIONS, AND ALLOTMENTS (1975 OCT)

(The following clause is applicable to rateable contracts)

The Contractor shall follow the provisions of DMS Reg. 1 or DPS Reg. 1 and all other applicable regulations and orders of the Bureau of Domestic Commerce in obtaining controlled materials and other products and materials needed to fill this order. (ASPR 7-104.18)

66. PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA - PRICE ADJUSTMENT (1970 JAN)

(The following clause is applicable if this contract is in excess of \$100,000)

(a) This clause shall become operative only with respect to any modification of this contract which involves aggregate increases and/or decreases in costs plus applicable profits in excess of \$100,000 unless the modification is priced on the basis of adequate competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation. The right to price reduction under this clause is limited to defects in data relating to such modification.

(b) If any price, including profit, or fee, negotiated

in connection with any price adjustment under this contract was increased by any significant sums because:

- (i) the Contractor furnished cost or pricing data which was not complete, accurate and current as certified in the Contractor's Certificate of Current Cost or Pricing Data;
- (ii) a subcontractor, pursuant to the clause of this contract entitled "Subcontractor Cost or Pricing Data" or "Subcontractor Cost or Pricing Data - Price Adjustments" or any subcontract clause therein required, furnished cost or pricing data which was not complete, accurate and current as certified in the subcontractor's Certificate of Current Cost or Pricing Data;
- (iii) a subcontractor or prospective subcontractor furnished cost or pricing data which was required to be complete, accurate and current and to be submitted to support a subcontract cost estimate furnished by the Contractor but which was not complete, accurate and current as of the date certified in the Contractor's Certificate of Current Cost or Pricing Data; or
- (iv) the Contractor or a subcontractor or prospective subcontractor furnished any data, not within (i), (ii) or (iii) above, which was not accurate, as submitted;

the price shall be reduced accordingly and the contract shall be modified in writing as may be necessary to reflect such reduction. However, any reduction in the contract price due to defective subcontract data of a prospective subcontractor, when the subcontract was not subsequently awarded to such subcontractor, will be limited to the amount (plus applicable overhead and profit markup) by which the actual subcontract, or actual cost to the Contractor if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor, *provided* the actual subcontract price was not affected by defective cost or pricing data.

Note: Since the contract is subject to reduction under this clause by reason of defective cost or pricing data submitted in connection with certain subcontracts, it is expected that the contractor may wish to include a clause in each such subcontract requiring the subcontractor to appropriately indemnify the contractor. However, the inclusion of such a clause and the terms thereof are matters for negotiation and agreement between the contractor and the subcontractor, *provided* that they are consistent with ASPR 23-203 relating to Disputes provisions in subcontracts. It is also expected that any subcontractor subject to such indemnification will generally require substantially similar indemnification for defective cost or pricing data required to be submitted by his lower tier subcontractors. (ASPR 7-104.29(b))

67. INTEREST (1972 MAY)

Notwithstanding any other provision of this contract, unless paid within thirty (30) days, all amounts that become payable by the Contractor to the Government under this contract (net of any applicable tax credit under the Internal Revenue Code) shall bear interest from the date due until paid and shall be subject to adjustments as provided by Part 6 of Appendix E of the Armed Services Procurement Regulation, as in effect on the date of this contract. The interest rate per annum shall be the interest rate in effect which has been established by the Secretary of the Treasury pursuant to Public Law 92-41; 85 STAT 97 for the Renegotiation Board, as of the date the amount becomes due as herein provided. Amounts shall be due upon the earliest one of (i) the date fixed pursuant to this

contract, (ii) the date of the first written demand for payment consistent with this contract, including demand consequent upon default termination, (iii) the date of final bill by the Government to the Contractor of a proposed supplemental agreement to confirm completed negotiations fixing the amount, or (iv) if this contract provides for revision of prices, the date of written notice to the Contractor stating the amount of refund payable in connection with a pricing proposal or in connection with a negotiated pricing agreement not confirmed by contract supplement. (ASPR 7-104.39)

68. AUDIT BY DEPARTMENT OF DEFENSE (1975 JUN)

The following clause is applicable unless this contract was entered into by formal advertising and is not in excess of \$100,000.

(a) *General.* The Contracting Officer or his representatives shall have the audit and inspection rights described in the applicable paragraphs (b), (c) and (d) below.

(b) *Examination of Costs.* If this is a cost reimbursement type, incentive, time and materials, labor hour, or price redeterminable contract, or any combination thereof, the Contractor shall maintain, and the Contracting Officer or his representatives shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of this contract. Such right of examination shall include inspection at all reasonable times of the Contractor's plants, or such parts thereof, as may be engaged in the performance of this contract.

(c) *Cost or Pricing Data.* If the Contractor submitted cost or pricing data in connection with the pricing of this contract or any change or modification thereto, unless such pricing was based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation, the Contracting Officer or his representatives who are employees of the United States Government shall have the right to examine all books, records, documents and other data of the Contractor related to the negotiation, pricing or performance of such contract, change or modification, for the purpose of evaluating the accuracy, completeness and currency of the cost or pricing data submitted. Additionally, in the case of pricing any change or modification exceeding \$100,000 to formally advertised contracts, the Comptroller General of the United States or his representatives who are employees of the United States Government shall have such rights. The right of examination shall extend to all documents necessary to permit adequate evaluation of the cost or pricing data submitted, along with the computations and projections used therein.

(d) *Reports.* If the Contractor is required to furnish Cost Information Reports (CIR) or Contract Fund Status Reports (CFSR), the Contracting Officer or his representatives shall have the right to examine books, records, documents, and supporting materials, for the purpose of evaluating (i) the effectiveness of the Contractor's policies and procedures to produce data compatible with the objectives of these reports, and (ii) the data reported.

(e) *Availability.* The materials described in (b), (c) and (d) above shall be made available at the office of the Contractor, at all reasonable times, for inspection, audit, or reproduction, until the expiration of three years

from the date of final payment under this contract or such lesser time specified in Appendix M of the Armed Services Procurement Regulation, and for such longer period, if any, as is required by applicable statute, or by other clauses of this contract, or by (1) and (2) below.

(1) If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for a period of three years from the date of any resulting final settlement.

(2) Records which relate to appeals under the "Disputes" clause of this contract, or litigation or the settlement of claims arising out of the performance of this contract, shall be made available until such appeals, litigation, or claims have been disposed of.

(f) The Contractor shall insert a clause containing all the provisions of this clause, including this paragraph (f), in all subcontracts exceeding \$10,000 hereunder, except altered as necessary for proper identification of the contracting parties and the Contracting Officer under the Government prime contract. (ASPR 7-104.41(a))

69. SUBCONTRACTOR COST OR PRICING DATA - PRICE ADJUSTMENTS (1970 JAN)

(The following clause is applicable if this contract is in excess of \$100,000)

(a) Paragraphs (b) and (c) of this clause shall become operative only with respect to any modification made pursuant to one or more provisions of this contract which involves aggregate increases and/or decreases in costs plus applicable profits expected to exceed \$100,000. The requirements of this clause shall be limited to such modifications.

(b) The Contractor shall require subcontractors hereunder to submit cost or pricing data under the following circumstances: (i) prior to the award of any subcontract the amount of which is expected to exceed \$100,000 when entered into; (ii) prior to the pricing of any subcontract modification which involves aggregate increases and/or decreases in costs plus applicable profits expected to exceed \$100,000, except where the price is based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation.

(c) The Contractor shall require subcontractors to certify that to the best of their knowledge and belief the cost and pricing data submitted under (b) above is accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract change or modification.

(d) The Contractor shall insert the substance of this clause including this paragraph (d) in each subcontract which exceeds \$100,000. (ASPR 7-104.42(b))

70.1 GOVERNMENT FURNISHED PROPERTY (SHORT FORM) (1964 NOV)

(The following clause is applicable when Government Property having an acquisition cost of \$25,000 or less is furnished to or acquired by the Contractor)

(a) The Government shall deliver to the Contractor, for use only in connection with this contract, the property described in the schedule or specifications (hereinafter referred to as "Government furnished property"), at the times and locations stated therein. If the Government-furnished property, suitable for its intended use, is not so delivered to the Contractor, the Contracting Officer shall, upon timely written request made by the Contractor, and if the facts warrant such action, equitably adjust any affected provision of this contract pursuant to the procedures of the "Changes" clause hereof.

(b) Title to Government furnished property shall

remain in the Government. The Contractor shall maintain adequate property control records of Government furnished property in accordance with sound industrial practice.

(c) Unless otherwise provided in this contract, the Contractor, upon delivery to him of any Government furnished property, assumes the risk of and shall be responsible for any loss thereof or damage thereto except for reasonable wear and tear, and except to the extent that such property is consumed in the performance of this contract.

(d) The Contractor shall, upon completion of this contract, prepare for shipment, deliver to, and dispose of all Government furnished property not consumed in the performance of this contract or not theretofore delivered to the Government, as may be directed or authorized by the Contracting Officer. The net proceeds of any such disposal shall be credited to the contract price or paid in such other manner as the Contracting Officer may direct. (ASPR 7-104.24(d))

70.2 GOVERNMENT PROPERTY (FIXED PRICE) (1968 SEP)

(The following clause is applicable when Government Property having an acquisition cost in excess of \$25,000 is furnished to or acquired by the Contractor)

(a) *Government Furnished Property.* The Government shall deliver to the Contractor, for use in connection with and under the terms of this contract, the property described as Government furnished property in the Schedule or specifications, together with such related data and information as the Contractor may request and as may reasonably be required for the intended use of such property (hereinafter referred to as "Government furnished property"). The delivery or performance dates for the supplies or services to be furnished by the Contractor under this contract are based upon the expectation that Government furnished property suitable for use (except for such property furnished "as is") will be delivered to the Contractor at the times stated in the Schedule or, if not so stated, in sufficient time to enable the Contractor to meet such delivery or performance dates. In the event that Government furnished property is not delivered to the Contractor by such time or times, the Contracting Officer shall, upon timely written request made by the Contractor, make a determination of the delay, if any, occasioned by the Contractor thereby, and shall equitably adjust the delivery or performance dates or the contract price, or both, and any other contractual provision affected by any such delay, in accordance with the procedures provided for in the clause of this contract entitled "Changes." Except for Government furnished property furnished "as is," in the event the Government furnished property is received by the Contractor in a condition not suitable for the intended use the Contractor shall, upon receipt thereof, notify the Contracting Officer of such fact and, as directed by the Contracting Officer, either (i) return such property at the Government's expense or otherwise dispose of the property, or (ii) effect repairs or modifications. Upon the completion of (i) or (ii) above, the Contracting Officer upon written request of the Contractor shall equitably adjust the delivery or performance dates or the contract price, or both, and any other contractual provision affected by the rejection or disposition, or the repair or modification, in accordance with the procedures provided for in the clause of this contract entitled "Changes." The foregoing provisions for adjustment are exclusive and the Government shall not be liable to suit for breach of contract by reason of any delay in delivery of Government furnished property or delivery of such property in a condition not suitable for its

intended use

(b) *Changes in Government furnished Property.*

- (1) By notice in writing, the Contracting Officer may (i) decrease the property provided or to be provided by the Government under this contract, or (ii) substitute other Government-owned property for property to be provided by the Government, or to be acquired by the Contractor for the Government, under this contract. The Contractor shall promptly take such action as the Contracting Officer may direct with respect to the removal and shipping of property covered by such notice.
- (2) In the event of any decrease in or substitution of property pursuant to subparagraph (1) above, or any withdrawal of authority to use property provided under any other contract or lease, which property the Government had agreed in the Schedule to make available for the performance of this contract, the Contracting Officer, upon the written request of the Contractor (or, if the substitution of property causes a decrease in the cost of performance, on his own initiative), shall equitably adjust such contractual provisions as may be affected by the decrease, substitution, or withdrawal, in accordance with the procedures provided for in the "Changes" clause of this contract.

(c) *Title.* Title to all property furnished by the Government shall remain in the Government. In order to define the obligations of the parties under this clause, title to each item of facilities, special test equipment, and special tooling (other than that subject to a "Special Tooling" clause) acquired by the Contractor for the Government pursuant to this contract shall pass to and vest in the Government when its use in the performance of this contract commences, or upon payment therefor by the Government, whichever is earlier, whether or not title previously vested. All Government-furnished property, together with all property acquired by the Contractor title to which vests in the Government under this paragraph, is subject to the provisions of this clause and is hereinafter collectively referred to as "Government property." Title to Government property shall not be affected by the incorporation or attachment thereof to any property not owned by the Government, nor shall such Government property, or any part thereof, be or become a fixture or lose its identity as personalty by reason of affixation to any realty.

(d) *Property Administration.* The Contractor shall comply with the provisions of Appendix B, Armed Services Procurement Regulation, as in effect on the date of the contract, which is hereby incorporated by reference and made a part of this contract. Material to be furnished by the Government shall be ordered or returned by the Contractor, when required, in accordance with the "Manual for Military Standard Requisitioning and Issue Procedure (MILSTRIP) for Defense Contractors" (Appendix H, Armed Services Procurement Regulation) as in effect on the date of this contract, which Manual is hereby incorporated by reference and made a part of this contract.

(e) *Use of Government Property.* The Government property shall, unless otherwise provided herein or approved by the Contracting Officer, be used only for the

performance of this contract.

(f) *Utilization, Maintenance and Repair of Government Property.* The Contractor shall maintain and administer, in accordance with sound industrial practice, and in accordance with applicable provisions of Appendix B, a program for the utilization, maintenance, repair, protection, and preservation of Government property until disposed of by the Contractor in accordance with this clause. In the event that any damage occurs to Government property the risk of which has been assumed by the Government under this contract, the Government shall replace such items or the Contractor shall make such repair of the property as the Government directs, *provided*, however, that if the Contractor cannot effect such repair within the time required, the Contractor shall dispose of such property in the manner directed by the Contracting Officer. The contract price includes no compensation to the Contractor for the performance of any repair or replacement for which the Government is responsible, and an equitable adjustment will be made in any contractual provisions affected by such repair or replacement of Government property made at the direction of the Government, in accordance with the procedures provided for in the "Changes" clause of this contract. Any repair or replacement for which the Contractor is responsible under the provisions of this contract shall be accomplished by the Contractor at his own expense.

(g) *Risk of Loss.* Unless otherwise provided in this contract, the Contractor assumes the risk of, and shall be responsible for, any loss of or damage to Government property provided under this contract upon its delivery to him or upon passage of title thereto to the Government as provided in paragraph (c) hereof, except for reasonable wear and tear and except to the extent that such property is consumed in the performance of this contract.

(h) *Access.* The Government, and any persons designated by it, shall at all reasonable times have access to the premises wherein any Government property is located, for the purpose of inspecting the Government property.

(i) *Final Accounting and Disposition of Government Property.* Upon the completion of this contract, or at such earlier dates as may be fixed by the Contracting Officer, the Contractor shall submit, in a form acceptable to the Contracting Officer, inventory schedules covering all items of Government property not consumed in the performance of this contract (including any resulting scrap) or not theretofore delivered to the Government, and shall prepare for shipment, deliver f.o.b. origin, or dispose of the Government property, as may be directed or authorized by the Contracting Officer. The net proceeds of any such disposal shall be credited to the contract price or shall be paid in such other manner as the Contracting Officer may direct.

(j) *Restoration of Contractor's Premises and Abandonment.* Unless otherwise provided herein, the Government:

- (i) may abandon any Government property in place, and thereupon all obligations of the Government regarding such abandoned property shall cease, and
- (ii) has no obligation to the Contractor with regard to restoration or rehabilitation of the Contractor's premises, neither in case of abandonment (paragraph (j)(i) above), disposition on completion of need or of the contract (paragraph (i) above), nor otherwise, except for restoration or rehabilitation costs which are properly included in an equitable adjustment under paragraph (b) above.

(k) *Communications* All communications issued pursuant to this clause shall be in writing or in accordance with the "Manual for Military Standard Requisitioning and Issue Procedure (MILSTRIP) for Defense Contractors" (Appendix H, Armed Services Procurement Regulation). (ASPR 7-104.24(a))

71. VARIATIONS IN ESTIMATED QUANTITIES (1968 APR)

(The following clause is not applicable to bid items listed in the "Variations in Estimated Quantities - Subdivided Items" clause, and also is not applicable to contracts for dredging work which contain the "Variations in Estimated Quantities - Dredging" clause.)

Where the quantity of a pay item in this contract is an estimated quantity, and where the actual quantity of such pay item varies more than fifteen percent (15%) above or below the estimated quantity stated in this contract, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above one hundred fifteen percent (115%) or below eighty-five percent (85%) of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contracting Officer shall, upon receipt of a written request for an extension of time within ten (10) days from the beginning of such delay, or within such further period of time which may be granted by the Contracting Officer prior to the date of final settlement of the contract, ascertain the facts and make such adjustment for extending the completion date as in his judgment the findings justify. (ASPR 7-603.27)

72. PROGRESS CHARTS AND REQUIREMENTS FOR OVERTIME WORK (1965 JAN)

(a) The Contractor shall within 5 days or within such time as determined by the Contracting Officer, after date of commencement of work, prepare and submit to the Contracting Officer for approval a practicable schedule, showing the order in which the Contractor proposes to carry on the work, the date on which he will start the several salient features (including procurement of materials, plant and equipment) and the contemplated dates for completing the same. The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion at any time. The Contractor shall enter on the chart the actual progress at such intervals as directed by the Contracting Officer, and shall immediately deliver to the Contracting Officer three copies thereof. If the Contractor fails to submit a progress schedule within the time herein prescribed, the Contracting Officer may withhold approval of progress payment estimates until such time as the Contractor submits the required progress schedule.

(b) If, in the opinion of the Contracting Officer, the Contractor falls behind the progress schedule, the Contractor shall take such steps as may be necessary to improve his progress and the Contracting Officer may require him to increase the number of shifts, or overtime operations, days of work, or the amount of construction plant, or all of them, and to submit for approval such supplementary schedule or schedules in chart form as may be deemed necessary to demonstrate the manner in which the agreed rate of progress will be regained, all without additional cost to the Government.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this provision shall be grounds for determination by the

Contracting Officer that the Contractor is not prosecuting the work with such diligence as will insure completion within the time specified. Upon such determination the Contracting Officer may terminate the Contractor's right to proceed with the work or any separable part thereof, in accordance with the clause of the contract entitled "Termination for Default - Damages for Delay - Time Extensions." (ASPR 7-603.48)

73. ENVIRONMENTAL LITIGATION (1974 NOV)(OCE)

(a) If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier not required by the terms of this contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a Subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the "Suspension of Work" clause of this contract. The period of such suspension, delay or interruption shall be considered unreasonable, and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof.

(b) The term "environmental litigation", as used herein, means a lawsuit alleging that the work will have an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment. (ECI 7-671.10)

74. STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan, in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is

being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirementsa for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(8 May 78)

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SPECIAL PROVISIONS

SP-1 COMMENCEMENT, PROSECTUION AND COMPLETION OF WORK. (JAN 1965)

The Contractor shall be required to commence work under this contract within 10 calendar days after the date of receipt by him of notice to proceed, to prosecute said work diligently and to complete the entire work ready for use not later than 240 calendar days after the date of receipt by him of notice to proceed. The time stated for completion shall include final clean-up of the premises. (ASPR 7-602.44)

SP-2 LIQUIDATED DAMAGES. (JAN 1965)

In case of failure on the part of the Contractor to complete the work within the time fixed in the contract or any extensions thereof, the Contractor shall pay to the Government as liquidated damages, pursuant to the clause of this contract entitled "Termination for Default - Damages for Delay- Time Extensions," the sum of \$115.00 for each day of delay. (ASPR 7-603.39)

SP-3 CONTRACT DRAWINGS AND SPECIFICATIONS. (JAN 1965)

Ten sets of full scale contract drawings and specifications will be furnished the Contractor without charge, except applicable publications incorporated into the Technical Provisions by reference. Additional sets will be furnished on request at the cost of reproduction. The work shall conform to the following contract drawings, all of which form a part of these specifications and are available in the office of the District Engineer, U. S. Army Engineer District, Philadelphia, Corps of Engineers, Room 306, Custom House, Philadelphia, PA 19106. Drawings are titled "Blue Marsh Lake, Gruber Restoration" and have the following drawing numbers, subtitles, and latest revision dates.

Drawing No.	Subtitle	Latest Revision Date
46501	Index and Cover Sheet	NONE
46502	Abbreviations, Symbols and General Data	NONE
46503	General and Site Plans	NONE
46504	Site Details	NONE
46505	Cellar Floor Plan	NONE
46506	Cellar Reflected Ceiling Plan	NONE
46507	First Floor Plan	NONE
46508	First Floor Reflected Ceiling Plan	NONE
46509	Second Floor Plan	NONE
46510	Second Floor Reflected Ceiling Plan	NONE
46511	Attic Floor Plan	NONE
46512	Roof Framing Plan	NONE
46513	Roof Plan and Details	NONE
46514	North and East Elevations	NONE
46515	South and West Elevations	NONE
46516	Transverse Sections	NONE
46517	Transverse and Longitudinal Sections	NONE
46518	Opening Schedule	NONE
46519	Forge Details	NONE
46520	Key Photograph Details 1	NONE
46521	Key Photograph Details 2	NONE
46522	Protective Floor Mats and Rails	NONE
46523	Lower Drive System	NONE
46524	First Floor Key Plan	NONE
46525	Furnishing Schedule	NONE
46526	Upper Drive System	NONE
46527	Cellar Sprinkler and Plumbing Plan	NONE
46528	First Floor Sprinkler Plan	NONE
46529	Second Floor Sprinkler Plan	NONE
46530	Attic Floor Sprinkler Plan	NONE
46531	Cellar Plan (Reflected Ceiling)	NONE
46532	First Floor Plan (Reflected Ceiling)	NONE
46533	Second Floor Plan (Reflected Ceiling)	NONE

b. Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work but they shall be performed as if fully and correctly set forth and described in the drawings and specifications.

c. The Contractor shall check all drawings furnished him immediately upon their receipt and shall promptly notify the Contracting Officer of any discrepancies. Figures marked on drawings shall in general be followed in preference to scale measurements. Large scale drawings shall in general govern small scale drawings. The Contractor shall compare all drawings and verify the figures before laying out the work and will be responsible for any errors which might have been avoided thereby.

SP-4 PHYSICAL DATA.

Information and data furnished or referred to below are furnished for information only and it is expressly understood that the Government will not be responsible for any interpretation or conclusion drawn therefrom by the Contractor. (ASPR 7-603.25)

a. The physical conditions indicated on the drawings and in the specifications are the result of site investigations by surveys, borings, etc.

Weather Conditions. Weather conditions are indicated by records from the Reading Pa. gage, elevation 266 ft/SLD, and the Lebanon Pa. gage, elevation 460 ft SLD.

Mean annual and monthly data are given in the following tables, temperature, for 2 stations, and precipitation for 1 (Reading, Pa).

	Precipitation at Reading, Pa. in Inches:			Mean Number Days	
	Mean (1)	Maximum (2)	Minimum (2)	(3)	(4)
				0.10 In	0.50 In
January	3.07	6.51	0.57	6	2
February	2.64	5.55	1.39	7	2
March	3.78	7.19	1.40	8	3
April	3.42	8.25	0.66	8	3
May	3.79	9.49	0.85	7	3
June	3.72	7.72	0.54	6	3
July	4.26	12.41	0.52	6	3
August	4.05	14.85	0.56	7	3
September	3.32	8.03	0.37	6	2
October	2.84	6.79	0.04	6	3
November	3.40	7.35	0.36	6	3
December	3.14	5.90	0.17	5	3
ANNUAL	41.43			78	33

(1) Based on climatological normal (1931-1960)

(2) Based on period of record (1910-1966)

(3) Seven years of record

(4) Ten years of record

TYPICAL TEMPERATURES IN TULPEHOCKEN CREEK WATERSHED

	: Temperature at Reading, Pa. : : in degrees F :					: Temperature at Lebanon, Pa. : : in degrees F :				
	: Normal	: Normal	: Extremes			: Normal	: Normal	: Extremes		
	: Mean	: Maximum	: Minimum	: High	: Low	: Mean	: Maximum	: Minimum	: High	: Low
	(a)	(b)	(b)	(c)	(c)	(d)	(b)	(b)	(d)	(d)
January	31.4	39.1	26.3	77	-14	29.4	37.6	21.5	74	-23
February	31.8	40.5	26.2	77	-13	30.1	38.7	21.3	77	-16
March	41.0	49.4	33.1	87	2	39.1	49.4	29.6	88	-10
April	51.5	62.2	43.0	94	12	50.5	62.3	39.4	95	10
May	62.4	73.4	53.2	96	31	61.1	73.4	49.3	98	29
June	70.9	81.9	62.5	102	43	70.0	81.5	58.4	103	22
July	75.7	86.4	67.3	103	48	74.3	86.2	63.2	105	40
August	73.4	84.0	65.5	105	46	72.3	83.6	61.2	106	40
September	66.8	77.0	58.0	102	32	65.5	77.4	53.9	103	25
October	56.1	66.6	47.8	94	24	54.0	66.1	43.3	96	21
November	44.6	52.7	37.5	84	10	42.7	53.9	33.9	82	5
December	33.8	41.3	28.0	71	-14	32.0	40.1	24.1	70	-11

(a) Based on 66 years of record.

(b) Based on 30 years of record.

(c) Based on 67 years of record.

(d) Based on 74 years of record.

unatab

1.-5 AVAILABILITY OF SPECIFICATIONS AND STANDARDS. (1974 APR)

Specifications, standards and descriptions cited in this solicitation are available as indicated below:

a. Unclassified Federal, Military, and Other Specifications and Standards (Excluding Commercial), and Data Item Descriptions. Submit request on DD Form 1425 (Specifications and Standards Requisition) to:

Commanding Officer
U. S. Naval Publications and Forms Center
5801 Tabor Avenue
Philadelphia, Pennsylvania 19120

The Department of Defense Index of Data Item Descriptions (TD-3) may be ordered on the DD Form 1425. The Department of Defense Index of Specifications and Standards (DODISS) may be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402. When requesting a specification or standard, the request shall indicate the title, number, date and any applicable amendment thereto by number and date. When requesting a data item description, the request shall cite the applicable data item number set forth in the solicitation. When DD Form 1425 is not available, the request may be submitted in letter form, giving the same information as listed above, and solicitation or contract number involved. Such requests may also be made to the activity by telegram or telephone (Area Code 215, 697-3321) in case of agency.

b. Commercial Specifications, Standards and Descriptions.

These specifications, standards and descriptions are not available from Government sources. They may be obtained from the publishers. (ASPR 7-2003.8)

SP-6 IDENTIFICATION OF GOVERNMENT FURNISHED PROPERTY. (SEP 1968)

Government will furnish to the Contractor the following property to be incorporated or installed in the work or used in its performance. The property designated as in storage below will be available to the Contractor at the Blue Marsh Resident

Engineers Office. The Contractor shall be responsible for transporting this material to the project site at his own expense. All such property will be installed or incorporated into the work at the expense of the Contractor, unless otherwise indicated herein. The Contractor shall verify the quantity and condition of such Government furnished property when delivered to him and acknowledge receipt thereof in writing to the Contracting Officer. In case of damage to or shortage of such property, he shall within 24 hours report in writing such damage or shortage to the Contracting Officer. (ASPR 7-603.28)

Items tagged in the structure:

1. Major machinery items noted on the Furnishing Schedule,
(Drawing 46525) and First Floor Key Plan(Drawing 46524)

2. Loose materials located at the Southeast Workbench
in room 101, consisting of

- a. Snowguards
- b. Anvil Base(Log)
- c. Door F102 Cast Iron Handle
- d. Knob and Tube Porcelain Parts
- e. Fire Pots

Items currently in storage:

- 1. From small tools inventory
 - a. Box 7, Items 64, 65,66, 68, 69 (filz plates)
 - b. Box 219, Item 3200 (2 blowers), 3205 (1 blower part)
 - c. Box 220, Item 3206 (1 blower)
 - d. Box 235, Item 3209 (1 blower)
 - e. Box 235, Item 3212 (1 blower part)

Other Items (Drawing 46524)

- 1. Tool Sharpening Machine, marked "I-5"
- 2. Wheelwright benches, marked "I-1c"
- 3. Hand Tire Bender, marked "I-21"
- 4. Anvils, marked "I-37d" and I-37g"

Items to be obtained by the Government

-ppace

- 1. National Landmark Plaque

SP-7 LAYOUT OF WORK

a. From the information shown on the drawings, the Contractor shall complete the layout of the work and shall be responsible for all measurements that may be required for the execution of the work to the location and limit marks prescribed in the specifications or on the contract drawings, subject to such modifications as the Contracting Officer may require to meet changed conditions or as a result of necessary modifications to the contract work.

b. The Contractor shall furnish, at his own expense, such stakes, templates, platforms, equipment, tools and material, and all labor as may be required in laying out any part of the work. It shall be the responsibility of the Contractor to maintain and preserve all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor, or through

As negligence, prior to their authorized removal, they may be replaced by the Contracting Officer, at his discretion. The expense of replacement will be deducted from any amounts due, or to become due the Contractor. The Contracting Officer may require that work be suspended at any time when location and limit marks established by the Contractor are not reasonably adequate to permit checking of the work.

SP-8 HARD HATS (HEAD PROTECTION).

The entire work area under this contract is designated as a hard hat area. The Contractor shall post the area as per paragraph 07.C.03, EM 385-1-1 and shall insure that all Contractor personnel, vendors and visitors utilize hard hats within the project area. (DR 385-1-3. 19 July 1967)

SP-9 DAMAGE TO WORK. (MAR 66 OCE).

The responsibility for damage to any part of the permanent new or existing work shall be as set forth in the clause of the contract entitled "Permits and Responsibilities." However, if, in the judgment of the Contracting Officer, any part of the permanent work performed by the Contractor is damaged by flood or earthquake, which damage is not due to the failure of the Contractor to take reasonable precautions or to exercise sound engineering and construction practices in the conduct of the work, the Contractor will make the repairs as ordered by the Contracting Officer and full compensation for such repairs will be made at the applicable contract unit or lump sum prices as fixed and established in the contract. If, in the opinion of the Contracting Officer, there are no contract unit or lump sum prices applicable to any part of such work, an equitable adjustment pursuant to Clause 3, Changes, of the contract will be made as full compensation for the repairs of that part of the permanent work for which there are no applicable contract unit or lump sum prices. Except as herein provided, damage to all work (including temporary construction), utilities, materials, equipment and plant shall be repaired to the satisfaction of the Contracting Officer at the Contractor's expense regardless of the cause of such damage. (ECI 7-671.3)

SP-10 TIME EXTENSIONS. (JAN 1965)

Notwithstanding any other provisions of this contract it is mutually understood that the time extensions for changes in the work will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. The change order granting the time extension may provide that the contract completion date will be extended only for those specific elements so delayed and that the remaining contract completion dates for all other portions of the work will not be altered and may further provide for an equitable readjustment of liquidated damages pursuant to the new completion schedule. (ASPR 7-603.36)

SP-11 PERFORMANCE OF WORK BY CONTRACTOR. (Jan 1965)

The Contractor shall perform on the site, and with his own organization, work equivalent to at least fifty percent (50%) of the total amount of work to be performed under the contract. If, during the progress of the work hereunder, the Contractor requests a reduction in such percentage; and the Contracting Officer determines that it would be to the Government's advantage, the percentage of the work required to be performed by the Contractor may be reduced; provided, written approval of such reduction is obtained by the Contractor from the Contracting Officer. (ASPR 7-603.15)

SP-12 CONTRACTOR QUALITY CONTROL.

The Contractor shall provide and maintain an effective quality control program that complies with the General Provision 41 of the contract entitled "Contractor Inspection System."

a. The Contractor shall establish a quality control system to perform sufficient inspection and control of all items of work, including that of his subcontractors, to ensure conformance to applicable specifications and drawings with respect to the materials, workmanship, construction, finish, functional performance, and identification. This control will be established for all construction except where the Technical Provisions of the contract provide for specific Government control by inspections, tests and other means. The Contractor's control system will specifically include the surveillance and tests required in the Technical Provisions of the contract specifications.

b. The Contractor's quality control system is the means by which he assures himself that his construction complies with the required of the contract plans and specifications. The controls shall be adequate to cover all construction operations and should be keyed to the proposed construction sequence.

c. The Contractor's job supervisory staff including subcontractor personnel may be used for quality control, supplemented as necessary by additional personnel for surveillance, special technicians, or testing facilities to provide capability for the controls required by the Technical Provisions of the specifications. Specifically, the Contractor shall have on his staff, a restoration specialist acceptable to the Government. The specialist shall have the following minimum credentials:

(1) Seven years experience performing restoration carpentry on certified historic structures over 100 years old. Experience must include knowledge of mortise and tenon heavy timber construction.

(2) Demonstrated knowledge of shoring and bracing techniques for timber structures.

(3) A background in architecture or structural engineering is preferable.

(4) Demonstrated knowledge of mechanical equipment, basic electricity wiring, and machinery.

(5) Demonstrated ability to understand industrial machinery operation.

(6) Demonstrated ability to successfully supervise other workmen and/or subcontractors.

d. The Contractor shall furnish to the Government, within 10 days after receipt of the Notice to Proceed, a quality control plan which shall include the procedures, instructions, and reports to be used. This document will include:

- (1) The quality control organization.
- (2) Number and qualifications of personnel to be used for this purpose.
- (3) Authority and responsibilities of quality control personnel.
- (4) Methods of quality control including that for his subcontractor's work.
- (5) Test methods including, as specified, name of qualified testing laboratory to be used.
- (6) Method of documenting quality control operation, inspection, and testing.
- (7) A copy of a letter of direction to the Contractor's representative responsible for quality control, outlining his duties and responsibilities, and signed by a responsible officer of the firm.
- (8) The name and qualifications of the restoration specialist.

e. After the contract is awarded and before construction operations are started, the Contractor shall meet with the Contracting Officer, or his representative, and discuss quality control requirements. The meeting shall develop mutual understanding relative to details of the system including the forms to be used for recording the quality control operations, inspections, administration of the system and the interrelationship of Contractor and Government inspection.

f. No construction will be started until the Contractor's quality control plan is accepted.

g. All compliance inspections shall be recorded on a construction Quality Control Report, including but not limited to the specific items required in each technical section of the specifications. The form shall include records of corrective action taken. A sample of a typical Contractor Quality Control Report is attached at the end of these Special Provisions. These records shall cover both conforming and defective items. Legible copies of daily reports shall be furnished daily to the Contracting Officer for permanent retention. The report shall cover all work placement subsequent to the previous report, and shall be verified and signed by the Contractor's designated representative. The verification should contain the statement that all supplies and materials incorporated in the work are

in compliance with the terms of the contract except as noted. The daily report must be a factual record of the Contractor's daily quality control activities and resulting actions. As such, they shall stress as major components of the report the following:

- (1) Phase(s) of construction underway during the time frame of the report. (i.e., earthwork, concrete work, structural steel erection, etc.)
- (2) Phase (preparatory, initial, or follow-up), and locations of inspection and/or check tests that were made.
- (3) Results of inspection, including nature of deficiencies observed and corrective actions taken or to be taken. If no inspections are listed on the report, it will be assumed that no inspections were made and that CQC is not being implemented.
- (4) Report of tests performed, including those specified, with the results of the tests, including failures and remedial action to be taken. Test results, including all computations should be attached to the report form. Where test results cannot be completed by the time the report is submitted, a notation should be made that the test was performed and the approximate date test results shall be submitted with the report form on the date received.
- (5) Monitoring of materials and equipment upon arrival at the jobsite and prior to incorporation into the work for compliance with submittal approvals, damage and proper storage.
- (6) Offsite surveillance activities.
- (7) Job safety.

h. If recurring deficiencies in an item or items indicate that the quality control system is not adequate, such corrective actions shall be taken as directed by the Contracting Officer.

i. Failure to satisfactorily perform any required inspection and tests, to submit timely, complete, and factual reports and test data, or to otherwise fail to comply with the quality control provisions may result in construction not complying with contract requirements. These conditions may form the basis for action to provide these services from another source. Any additional cost to the Government for providing these services will be deducted from payments due the Contractor. Failure of the Contractor to perform in accordance with the terms of the contract will be justification for withholding payments.

SP-13 CERTIFICATES OF COMPLIANCE. (MAY 1969 OCE)

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in triplicate copies. Each certificate shall be signed by an official authorized to certify on behalf of the manufacturing company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material, if, after tests are performed on selected samples, the material is found not to meet the specific requirements.

SP-14 TEMPORARY HEAT

a. The Contractor shall provide at no additional expense to the Government, all cold weather protection, temporary heat and fuel as necessary to carry on the work expeditiously during inclement weather, to protect all work and materials against injury from dampness and cold, to dry out the building and to provide suitable working conditions for the installation and curing of materials until final acceptance by the Government. (Refer to requirements in detail specifications for temperatures to be provided and maintained for installation and curing of work under the various trades)

b. The methods of heating and the type of fuel and equipment used shall be subject to approval by the Contracting Officer. Acceptable methods and fuel are follows:

(1) Gas fired space heaters, properly vented; with gas distribution piping from LP gas storage tank located outside the building; with individual space thermostatic control.

(2) Self-contained LP gas or fuel oil heaters, properly vented; with individual space thermostatic control.

(3) Limitations: In any case, do not use open burning or salamander type temporary heating units.

SP-15 WATER.

The responsibility shall be upon the Contractor to provide and maintain at his own expense an adequate supply of water for his use for construction and domestic consumption, and to install and maintain necessary supply connections and piping for same, but only at such locations and in such manner as may be approved by the Contracting Officer. Before final acceptance, temporary connections and piping installed by the Contractor shall be removed in a manner satisfactory to the Contracting Officer. Potable water is not currently available at the site. (NAB-SP)

SP-16 ELECTRICITY.

All electric current required by the Contractor shall be furnished at his own expense. All temporary connections for electricity shall be subject to the approval of the Contracting Officer. All temporary lines shall be furnished, installed, connected and maintained by the Contractor in a workmanlike manner satisfactory to the Contracting Officer and shall be removed by the Contractor in like manner at his expense prior to final acceptance of the construction. (NAB-SP)

SP-17 PROJECT SIGN.

Project sign shall be provided and erected at a location designated by the Contracting Officer. The sign shall conform to the requirements as shown on the inclosed sketch. The sign shall be erected within 15 days after the date of receipt of notice to proceed. Upon completion of the project, the sign shall be removed and disposed of by the Contractor. No separate payment will be made for providing the Project sign and all costs in connection therewith shall be included in the overall cost of the work.

SP-18 SAFETY SIGN

Safety Sign shall be provided and erected at a location designated by the Contracting Officer. The sign shall conform to the requirements as shown on the attached sketch. The sign shall be erected within 15 days after the date of receipt of notice to proceed. The data required by the sign shall be kept up-to-date. Upon completion of the project, the sign shall be removed and disposed of by the Contractor. No separate payment will be made for providing the Safety sign and all costs in connection therewith shall be included in the overall cost for the job.

SP-19 SHOP DRAWINGS AND MATERIALS SUBMITTAL. (JULY 1973)

Within 30 days after receipt of notice to proceed, the Contractor shall submit to the Contracting Officer, five copies of the submittal control document (ENG Form 4288) listing all submittal items. For example, those items listed will include shop drawings, manufacturer's literature, certificates of compliance, material samples, and guarantees. The scheduled need dates must be recorded on the document for each item for control purposes. In preparing the document adequate time (minimum of 15 days or more) will be allowed for review and approval and possible resubmittal. Scheduling shall be coordinated with the approved progress schedule. The Contracting Officer will supply ENG Forms 4288 to the Contractor to include the above information. The schedule shall not relieve the Contractor of his obligation to comply with all the specification requirements for the items on the schedule. The Contractor's Quality Control representative shall review the listing at least every 30 days and take appropriate action to maintain an effective system. Copies of updated or corrected listings shall be submitted to the Contracting Officer at least every 60 days in the quantity specified. Payment will not be made for any material or equipment which does not comply with contract requirements. (ER 415-1-10)

SP-20 RECORD DRAWINGS.

During the progress of the job, the Contractor shall keep a careful record at the job site of all changes and corrections from the layouts shown on the drawings. The Contractor shall enter such changes and corrections on record drawings promptly but in no case later than on a weekly basis. The record drawings shall indicate, in addition to all changes and corrections, the actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, the record drawings shall show, by offset dimensions to two permanently fixed surface features, the end of each run including each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensioning along the utility run from a reference point. The average depth below the surface of each run shall also be recorded. At the time of beneficial occupancy of each structure or facility involved under this contract, the Contractor shall submit to the Contracting Officer as-built prints showing the aforementioned data. If the Contractor fails to maintain the record drawings as required herein, the Contracting Officer will deduct from the monthly progress payment, an amount representing the estimated monthly cost of maintaining the record drawings, and will continue deduction of the 10% retainage even after 50% completion of the contract. In addition, final payment with respect to separately priced facilities or the contract as a whole, will be withheld until proper as-built drawings have been furnished to the Contracting Officer.

SP-21 ORDER OF WORK AND COORDINATION WITH OTHER CONTRACTORS.

a. The work shall be carried on at such places and in such order or precedence as may be found necessary by the Contracting Officer, and shall be constructed in every part in exact conformity with the location and limit marks shown on the drawings or otherwise determined by the Contracting Officer.

b. Attention is invited to the fact that others will be working at the project site concurrently with the work under this contract. Such work will include relocation of Deppen Cemetery and other work by Berks County and/or its contractor. The order of work under this contract shall be coordinated with the other work at the site.

c. The Contractor shall not interfere with material, appliances or workmen of the Government, or of any other Contractor who may be working at the site. As far as practicable, all Contractors shall have equal rights to the use of all roads and grounds. In case of disagreement regarding such use, the decision of the Contracting Officer shall be final. (NAB-SP)

SP-22 SAFETY PROGRAM

Corps of Engineers Manual EM 385-1-1, 1 June 1977, is hereby supplemented or revised as follows:

a. The Contractor shall designate an employee responsible for the overall supervision of accident prevention activities. Such duties shall include (1) assuring applicable

1. Safety requirements are incorporated in work methods and (2) inspecting the work to ensure that safety measures and instructions are actually applied.

b. As part of the Contractor's safety program, the Contractor and the Resident Engineer will develop the analysis required for the first phase of a contract in the preconstruction safety conference before work is permitted to start and must cover at least the first 30 days of construction. At least one week before entering the next phase, another safety meeting will be held to develop a job hazard analysis for this phase. All subcontractors who will be working during that phase will be represented and contribute to the analysis. c. Subsequent safety meetings will be scheduled by the Resident Engineer with Contractor and subcontractor personnel on a monthly basis. If progress to another phase is anticipated within three weeks the analysis will be prepared to include this phase too.

d. Minutes of all safety meetings will be recorded and signed by the contractor, concurrence signed by the Corps and the original forwarded to the Safety Office for inclusion in the contract file as part of the safety program.

e. In satisfying the safety objectives, the Contractor may utilize any method which meets the contract requirements as herein specified or as may otherwise be directed by the Contracting Officer.

SP-23 LOCAL LABOR PREFERENCE

a. The Contractor and his subcontractors shall, in carrying out the work under this contract, give preference to qualified persons who regularly reside in the area where the project is situated except:

(1) To the extent that qualified persons regularly residing in the area are not available.

(2) For the reasonable needs of the Contractor or his subcontractors to employ supervisory or specially experienced individuals necessary to assure execution of the contract.

(3) or the obligation of the Contractor or his subcontractors to offer employment to present or former employees as a result of a lawful collective bargaining contract, provided that in no event shall the number of non-resident persons employed under this subparagraph (3) exceed 20 percent of the total number of employees employed by such Contractor and his subcontractors on such project.

b. The Contractor and his subcontractors shall furnish the United States Employment Service Office in the area in which the project is located with a list of all positions for which they may from time to time require laborers, mechanics and other employees.

c. The Contractor shall furnish and shall be responsible for his subcontractors furnishing to the Contracting Officer calendar year quarterly reports by the 10th of the month following the end of each calendar quarter year. Reports shall be in such form as the Contracting Officer may prescribe and shall show the total number of employees and the number of employees who regularly reside within commuting distance of

SP

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the site of the work. If the number of non-resident employees of the Contractor or any subcontractor exceeds 20% of his total employees, the report shall also include a statement of actions taken to achieve compliance with this clause. (ECI 2-201.70)

SP-24 WAGE RATES

SUPERSEDES DECISION

STATE: Pennsylvania
COUNTY: Berks
DATE: Date of Publication
DECISION NO.: PA77-3125
DATE: February 18, 1977, in 42 FR 10363.
DESCRIPTION OF WORK: Building Construction, (does not include single family homes and garden type apartments up to and including 4 stories).

Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
	H & W	Pensions	Vacation		
Asbestos workers	.52	.90			.01
Asbestos workers	1.05	1.00			.02
Boiler makers	.30	.75			
Bricklayers	.60	.45			
Carpenters	.52	.50			
Cement masons					
Electricians:					
- electric, longspan & washing-					
- ton, 120v., portion of Maxata-					
- ney, 120v., east of Sacony					
- Green	.35	34.80			.02
Millers, Tulpehocken & Bethel					
120v.	.45	.32			1/2 of 12
Painter of County	.73	.32			.03
Plasterers	.545	.35	42.40v		.02
Plasterers' Helpers	.545	.35	42.40v		.02
Plasterers' Helpers					
(120v.)					
Plasterers	.40	.30			.01
Plasterers, structural &					
- cemental, bridge	.84	1.36			.02
Plasterers, reinforcing	.84	1.36			.02
Plasterers:					
- General laborers	.40	.25			
- Operators of jackhammer, paving					
- breaking and other pneumatic,					
- electrical and mechanical tools,					
- cutters, under the jurisdiction					
- of laborers, laying of all clay					
- terra cotta, ironstone, vitri-					
- fied concrete or non-metallic					
- pipe and the making of joints					
- for same, when drill operators					
- and concrete power blasters,					
- precast slab placers, all-					
- m., brick, stone, plasterers					
- and cement masons' helpers,					
- Electric masons, stuccoers,					
- Scaffold builders, plaster					
- Pump and concrete, blasters,					
- Collision workers, when air					
- track and diamond point drill					
- operators, burners, torches,					
- Green cutting machine, steam					
- jenny and blastin					
	.40	.25			

Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
	H & W	Pensions	Vacation		
DECISION # PA77-3125					
Laborers (Cont'd.)	.40	.25			
Cofferdam, (below 10'), tunnels					
free air and muckers					
Handling and using cutting or					
burning torches in the					
wrecking of buildings, plaster-					
er tenders, scaffold building					
and removal for plasterers					
Lathers	.40	.25			.01
Lead Burners	.40	.25			.01
Line Construction:					
- Cable splicers	.40	.32			3/42
- Groundmen	.40	.32			3/42
- Linemen	.40	.32			3/42
- Winch truck operator	.40	.32			3/42
- Millwrights	.52	.45			
- Painters:					
- Brush	.70	.55			
- Bridge, tower, stacks & tanks	.70	.55			
- Spray and steel	.70	.55			
- Pile drivers	2.13	1.30			.12
- Plasterers	.91	.53			.01
- Plasterers	.80	1.45			.11
Roofers:					
- Albany, Maxatany and Windsor	.15	.80			
- Composition and slate					
- Remainder of County					
- Composition, damp & waterproof	.45	.25			
- Precast slab	.45	.25			
- Slate, tile & Asbestos	.45	.25			
- Sheet metal workers	1.39	1.18			.05
- Soft floor layers	.91	.45			
- Sprinkler fitters	.65	.95			.08
- Steamfitters	.80	1.45			.11
- Stone masons	.60	.75			
- Truck Drivers:					
- Truck drivers	.623	.7			
- Truck drivers, helpers	.618	.7			

DECISION #PA77-3125

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Welders - receive rate prescribed for craft performing operation to which welding is incidental.

Welding Machine Operators
GROUP 1: All types of cranes, all types of buckets, cableways, draglines, keystones, all types of shovels, derricks, trench shovels, trenching machines, hoists with two towers, jacks 21E and over, all types overhead cranes, building poles (double drum) grapples, stacking machines in tunnel, all front end loaders 3-4 cu. yd. and over, tank scrapers, pipan type scrapers, Best Capitaines, batch plant operators (concrete) drills, self-contained rotary drills, fork lifts, 20 ft. lift and over machine to the above

GROUP 2: Conveyors, building hoists (single drum) scrapers and trenchfills, scrapers, high or low pressure boilers, concrete pump, well drillers, bulldozers and tractors, asphalt plant engineers, roller (high grade finishing), ditch witch type trencher, all loaders under 3-4 cu. yd., mechanical wetters, motor pitrols, drill helper-self contained rotary drills, core drill operator, forklift trucks under 20 ft. lift, machines similar to the above

GROUP 3: Welding machines, well points, compressors, pumps, beaters, farm tractors, form line graders, fine grade machines, road finishing machines, concrete breaking machines, rollers, seaman pulverizing mixer, power broom, seeding spreader, tireman (for power equipment), machines similar to above

GROUP 4: Fireman, grease truck

GROUP 5: Oilers and deck hands (personnel boats), core drill helper

GROUP 6: All machines with booms (including jib, masts, leads, etc.): 100 ft. and over

GROUP 7-A: 150 ft. and over

GROUP 7-B: 200 ft. and over

Fireman:
a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, provided the employee works the day before and after the holiday.

b. Paid Holidays: Washington's Birthday, Good Friday, Memorial Day, Labor Day, Presidential Election Day, Veteran's Day and Thanksgiving Day.

c. Employees contributing \$40.36 per month to a Pension Fund.

d. Employees contributing \$40.36 per month to a Pension Fund.

e. Employees contributing \$40.36 per month to a Pension Fund.

f. Employees contributing \$40.36 per month to a Pension Fund.

g. Employees contributing \$40.36 per month to a Pension Fund.

h. Employees contributing \$40.36 per month to a Pension Fund.

i. Employees contributing \$40.36 per month to a Pension Fund.

j. Employees contributing \$40.36 per month to a Pension Fund.

k. Employees contributing \$40.36 per month to a Pension Fund.

l. Employees contributing \$40.36 per month to a Pension Fund.

m. Employees contributing \$40.36 per month to a Pension Fund.

n. Employees contributing \$40.36 per month to a Pension Fund.

o. Employees contributing \$40.36 per month to a Pension Fund.

p. Employees contributing \$40.36 per month to a Pension Fund.

q. Employees contributing \$40.36 per month to a Pension Fund.

GROUP	Hourly Rate	Fringe Benefits Percentage			App. To
		H & W	Retirement	Vacation	
GROUP 1	912.29	5.5%	9.5%	A	1.2%
GROUP 2	12.00	5.5%	9.5%	A	1.2%
GROUP 3	11.13	5.5%	9.5%	A	1.2%
GROUP 4	10.36	5.5%	9.5%	A	1.2%
GROUP 5	9.89	5.5%	9.5%	A	1.2%
GROUP 6	8.98	5.5%	9.5%	A	1.2%
GROUP 7	12.54	5.5%	9.5%	A	1.2%
GROUP 7-A	12.79	5.5%	9.5%	A	1.2%
GROUP 7-B	13.03	5.5%	9.5%	A	1.2%

GROUP 1: Machines doing hook work, any machine handling machinery, cable spinning machines, helicopters, machines similar to the above

GROUP 2: All types of cranes, all types of buckets, cableways, draglines, keystones, all types of shovels, derricks, trench shovels, trenching machines, hoists with two towers, jacks 21E and over, all types overhead cranes, building poles (double drum) grapples, stacking machines in tunnel, all front end loaders 3-4 cu. yd. and over, tank scrapers, pipan type scrapers, Best Capitaines, batch plant operators (concrete) drills, self-contained rotary drills, fork lifts, 20 ft. lift and over machine to the above

GROUP 3: Conveyors, building hoists (single drum) scrapers and trenchfills, scrapers, high or low pressure boilers, concrete pump, well drillers, bulldozers and tractors, asphalt plant engineers, roller (high grade finishing), ditch witch type trencher, all loaders under 3-4 cu. yd., mechanical wetters, motor pitrols, drill helper-self contained rotary drills, core drill operator, forklift trucks under 20 ft. lift, machines similar to the above

GROUP 4: Welding machines, well points, compressors, pumps, beaters, farm tractors, form line graders, fine grade machines, road finishing machines, concrete breaking machines, rollers, seaman pulverizing mixer, power broom, seeding spreader, tireman (for power equipment), machines similar to above

GROUP 5: Fireman, grease truck

GROUP 6: Oilers and deck hands (personnel boats), core drill helper

GROUP 7: All machines with booms (including jib, masts, leads, etc.): 100 ft. and over

GROUP 7-A: 150 ft. and over

GROUP 7-B: 200 ft. and over

Fireman:

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, provided the employee works the day before and after the holiday.

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Job Title	Rate	Hours	Total
Operator	\$ 9.40	.70	.73
Operator	10.50	.50	.53
Operator	9.40	.65	.63
Operator	10.50	.75	.73
Operator	11.40	.45	.43
Operator	6.82	.65	.63
Operator	11.40	.65	.63
Operator	7.20	.45	.43
Operator	9.40	.75	.73

Cumulative Elevator Constructors	11.61	.75	.56	E+C	12.92
Elevator Constructors Holdings	7.34	.75	.56	E+C	8.65
Elevator Constructors Holdings Group	5.75				

5. Fresh over contributors to basic hourly rate for 6 months or more of service or at basic hourly rate for 6 months + 5 years of service at a reduction per cent.

c. Fall 1944: A through F, plus the "Prisoner of War" label.

DECISION EPA 77-1125 - M.D. # 3 (42 FR 65570 - Sept. 9, 1977) Berks County, Pennsylvania				
Class: Electricians Union, Turphocken, and Bethel Twp.	9.40	.65	5%	1/4 of

10-18-68 #A272-125 - 125' x 4'			
10-18-68 #A20 - 500 ft. x 1' x 11"			
In Pa County, Pennsylvania			
Materials:			
1) Binder of County:			
Cementation, damp & waterproof-	\$9.25	.40	.40
ing			
Finest slab	10.80	.95	d
Slate, tile and asbestos	11.00	.95	e
	11.25	.95	d,

DECISION #A77-3125 - M.A. #5 (42 FR 45620 - Sept. 9, 1977) Berks County, Pennsylvania				
Electricians	10.76	.67	.50	1.01
Remainder of County	10.99	.73	35+.20	3/4 of 1.01

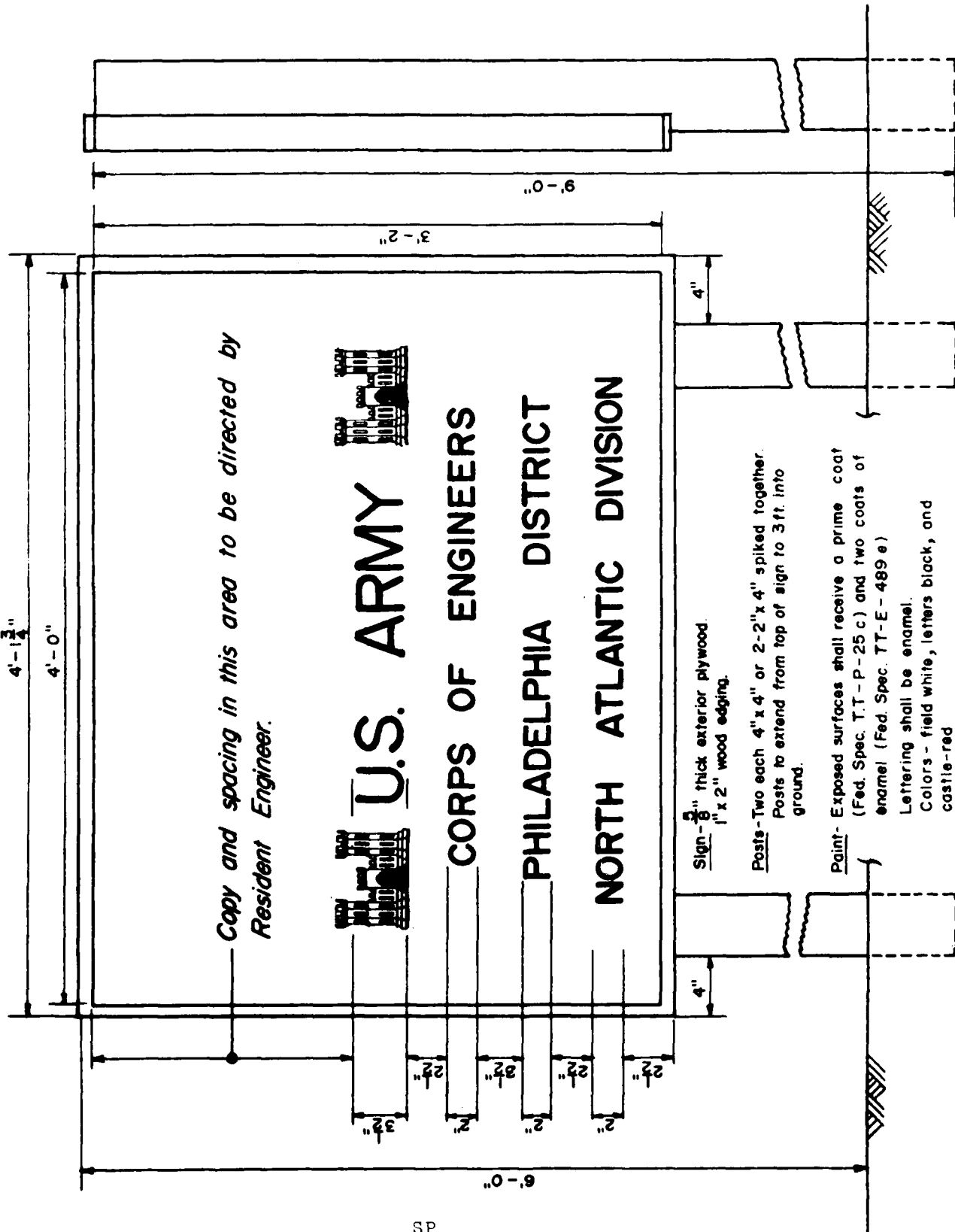
Basic Hourly Rates	Fringe Benefits Payments			
	H & W	Pensions	Vacation	Education and/or App. Tr.
DECISION #A77-3125 - M.A. #6 (42 FR 45620 - September 9, 1977) Berks County, Pennsylvania				
Change:				
Electricians:				
Remainder of County	\$10.99	.78	35+.20	1.01
Special Fitters	12.34	.79	1.00	1.01

DECISION #A77-3125 - M.A. #7
(42 FR 45620 - September 9, 1977)
Berks County, Pennsylvania

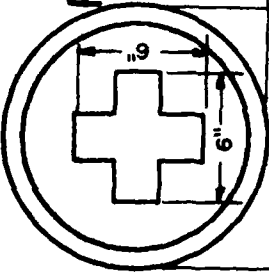
Basic Hourly Rates	Fringe Benefits Payments			
	H & W	Pensions	Vacation	Education and/or App. Tr.
Change:				
General Laborers	\$ 7.60	.45	.35	
Operators of jackhammer, paving breaking and other pneumatic, electrical and mechanical tools coming under the jurisdiction of laborer, laying of all clay, terra cotta, ironstone, vitri- fied concrete or non-metallic pipe and the making of joints for same, wagon drill operators and concrete power huggies	7.83	.45	.35	
Cofferdam, (below 10'), tunnel free air ruckers	7.88	.45	.35	
Handling and Using cutting or burning torches in the wrecking of buildings, plaster tenders, scaffold builders and removal for plasterers	7.99	.45	.35	
Mason tenders, scaffold builders, removal for mason and power huggies	8.03	.45	.35	
Blasters	8.05	.45	.35	
Power Equipment Operators:				
Group 1	12.44	74	10.34	1.84
Group 2	12.15	74	10.34	1.84
Group 3	11.24	74	10.34	1.84
Group 4	10.51	74	10.34	1.84
Group 5	10.01	74	10.34	1.84
Group 6	9.11	74	10.34	1.84
Group 7	12.69	74	10.34	1.84
Group 7-A	12.91	74	10.34	1.84
Group 7-B	13.10	74	10.34	1.84

GRUBER RESTORATION
DACW 61-78-B-0064

Description of Work	Unit Price	Quantity			
		Est. Qty	Location	Value	Actual
Gruber, 10000, 10000, 10000, 10000 (4000, 4000, 4000, 4000) Gruber County, Pennsylvania					
Gruber, 10000	50.40	.70	.40		
Gruber, 10000 & 10000	9.90	.70	.70		
Gruber, 10000					
Gruber, 10000 & 10000	11.25	.50	250.50		.62
Gruber, 10000 & 10000	9.50	.50	250.50		1 of 15
Gruber, 10000	10.60	.50	.40		
Gruber, 10000	9.50	.70	.50		
Gruber, 10000, 10000, 10000 & 10000	10.80	.70	.50		
Gruber, 10000	10.50	.70	.50		
Gruber, 10000 & 10000	12.20	.70	1.40		.11



SP

<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="font-size: 24px; margin: 0;">NAME OF CONTRACTOR</p> <p style="font-size: 18px; margin: 0;">ADDRESS</p> <p style="font-size: 18px; margin: 0;">ADDRESS</p> </div> <div style="width: 50%;"> <p style="font-size: 24px; margin: 0;">SAFETY IS A JOB REQUIREMENT</p> <p style="font-size: 24px; margin: 0;">THIS CONTRACT HAS OPERATED</p> </div> </div>	
<p style="font-size: 18px; margin: 0;">PREVIOUS RECORD</p> <p style="font-size: 18px; margin: 0;">DAYS</p>	<div style="text-align: center;">  <p style="font-size: 18px; margin: 0;">12"</p> </div> <p style="font-size: 18px; margin: 0;">WITHOUT A</p> <p style="font-size: 18px; margin: 0;">LOST TIME INJURY</p>

Sign - $\frac{5}{8}$ " thick exterior plywood.

1" x 2" wood edging.

Posts - Two each: 4' x 4" or 2-2" x 4" spiked together.

Posts to extend from top of sign to 3ft into ground.

Paint - Exposed surfaces shall receive a prime coat (Fed. Spec. TT-P-25c) and two coats of enamel (Fed. Spec. TT-E-489e). Lettering shall be enamel.

Colors: field-white; letters-black, and cross and circular border green.

4' - 0"

4"

4"

2' - 10"

0-9 SP

SAFETY SIGN

DAILY CONSTRUCTION QUALITY CONTROL REPORT

CONTRACT NO. AND NAME OF CONTRACTOR:

DESCRIPTION AND LOCATION OF THIS WORK:

WEATHER CONDITIONS:

CLASSIFICATION:

CLASS 1: Interruptions of any kind from weather conditions during this date.

CLASS 2:

CLASS 2: Interruptions today caused a complete stoppage of work.

CLASS 3:

CLASS 3: Interruptions during this date caused a partial stoppage of work. State Remarks.

CLASS 4:

CLASS 4: Excellent or suitable, Work completed, no interruption to previous adverse weather.

CLASS 5: Excellent or suitable, Work partially completed, no interruption to previous adverse weather.

OTHER:

Name of Subcontractors	Number Emp. by			Shift Worked	
	Supv.	Skilled	Unskilled	From	To
A.					
B.					
C.					
D.					
E.					
F.					
G.					
H.					
I.					
J.					
K.					
L.					

1. WORK PERFORMED TODAY: (Indicate location and description of work performed. Refer to work performed by prime and/or subcontractors by letter in table above.)

SAMPLE

2. TEST AND RESULTS OF INSPECTION: (Indicate whether: P-Preparatory, I-Initial, or F-Follow-up and include satisfactory work completed or deficiencies with action to be taken.)

SAMPLE

3. Test Required by Plan and/or Specifications performed and Results of Tests.

SAMPLE

4. Materials and Equipment Installed and Approved for Use. (Refer to by letter in Table above.)

5. VERBAL INSTRUCTIONS RECEIVED: (List any instructions given by Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)

7. SAFETY: (Include any infractions of approved safety plan, safety manual or instructions from Government personnel. Specify corrective action taken.)

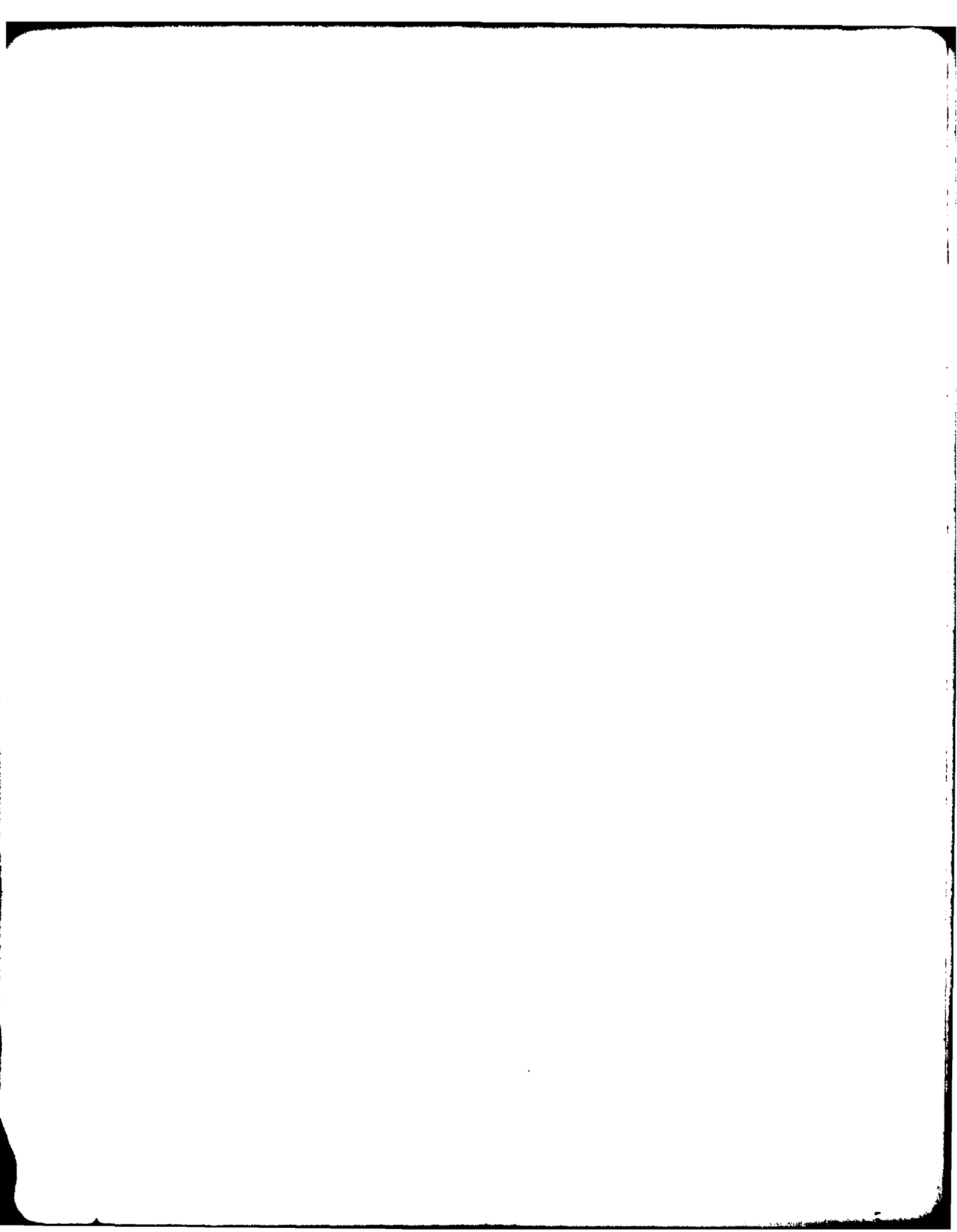
SAMPLE

8. ATTACHMENTS:

- | | |
|--|--|
| <input type="checkbox"/> EQUIPMENT REPORT | <input type="checkbox"/> CONCRETE REPORT |
| <input type="checkbox"/> GRADATION REPORT | <input type="checkbox"/> OTHER |
| <input type="checkbox"/> COMPACTION REPORT | |

CONTRACTOR'S CERTIFICATION: I certify that the above report is complete and correct and that all material and equipment used, work performed and tests conducted during this reporting period were in strict compliance with the contract plans and specifications except as noted above.

CONTRACTOR'S APPROVED AUTHORIZED REPRESENTATIVE



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GRUBER REST

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DIVISION 1 - GENERAL
SECTION 1A
ENVIRONMENT PROTECTION

1. GENERAL:

1.1 Description of Work: The work covered by this section consists of furnishing all labor, materials and equipment and performing all work required for the prevention of environmental pollution during and as the result of construction operations under this contract (except for those measures set forth in other Technical Provisions of these specifications.) For the purpose of this specification, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to affect other species of importance to man; or degrade the utility of the environment for aesthetic and recreational purposes. The control of environmental pollution requires consideration of air, water, and land, and involves noise, solid waste-management and management of radiant energy and radioactive materials, as well as other pollutants. The following additional requirements are intended to supplement and clarify the requirements of clauses 49, 50, 33 and 62 of the GENERAL PROVISIONS.

1.2 Applicable Regulations: In order to prevent, and to provide for abatement and control of, any environmental pollution arising from the construction activities of this contract, the Contractor and his subcontractors shall comply with all applicable Federal, State, and local laws, and regulations concerning environmental pollution control and abatement, Section 212 of Form 408, and all applicable provisions of the Corps of Engineers Manual, EM 385-1-1, entitled "General Safety Requirements", in effect of the date of solicitation, as well as the specific requirements stated elsewhere in the contract specifications.

1.3 Notification: The Contracting Officer will notify the Contractor in writing of any non-compliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor unless it was later determined that the Contractor was in compliance.

1.4 Subcontractors: Compliance with the provisions of this section by subcontractors will be the responsibility of the Contractor.

2. EXECUTION

2.1 Implementation: Prior to commencement of the work the Contractor will:

2.1.1 Thoroughly review this section of the Technical Provisions, which outlines the methods and materials to be utilized for sedimentation control; and the drawings which indicate a possible plan of sedimentation erosion control.

2.1.2 Meet with representatives of the Contracting Officer to develop mutual understanding relative to compliance with this provision and administration of the environmental pollution control program.

2.2 Protection of Land Resources:

2.2.1 General: It is intended that the land resources within the limit of work and outside the grading limits be preserved in their present condition or be restored to a condition after completion of construction that will appear to be natural and not detract from the appearance of the project. Insofar as possible, the Contractor shall confine his construction activities to areas defined by the plans or specifications.

2.2.2 Prevention of Landscape Defacement: Except in required clearing and grubbing areas, the Contractor shall not deface, injure, or destroy trees or shrubs, nor remove or cut them without special authority. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorages unless emergency use is permitted. The Contractor shall first adequately wrap the trunk with a sufficient thickness of burlap or rags over which softwood cleats shall be tied before any rope, cable, or wire is placed. The Contractor shall in any event be responsible for any damage resulting from such use. Where, in the opinion of the Contracting Officer, trees may possibly be defaced, bruised, injured, or otherwise damaged by the Contractor's equipment or by his blasting, dumping or other operations, he may direct the Contractor to adequately protect such trees by placing boards, planks, or poles around them.

2.2.3 Restoration of Landscape Damage: Any trees or other landscape feature scarred or damaged by the Contractor's equipment or operations shall be restored as nearly as possible to its original condition at the Contractor's expense. The Contracting Officer will decide what method of restoration shall be used, and whether damaged trees shall be treated and left standing, replaced in kind or removed and disposed of under requirements for clearing and grubbing.

- a. All scars made on trees (not designated on the plans to be removed) by equipment, construction operations, or by the removal of limbs larger than 1 inch in diameter shall be coated as soon as possible with an approved tree wound dressing. All trimming or pruning shall be performed in a approved manner by experienced workmen with saws or pruning shears. Tree trimming with axes will not be permitted. Where tree climbing is necessary, the

use of climbing spurs will not be permitted. The use of climbing ropes shall be required by the Contracting Officer where deemed necessary for safety. Trees to remain, that are damaged by the Contractor and are beyond saving, in the opinion of the Contracting Officer, shall be immediately removed and replaced with a nursery-grown tree of the same species.

2.2.4 Location of Storage and Service Facilities: The location on Government property of the Contractor's storage, and other construction buildings, required temporarily in the performance of the work, shall be upon cleared portions of the job site or areas to be cleared, and shall require written approval of the Contracting Officer. The preservation of the landscape shall be an imperative consideration in the selection of all sites and in the construction of buildings. Plans showing storage and service facilities shall be submitted for approval by the Contracting Officer. Where buildings or platforms are constructed in sidehills, the Contracting Officer may require cribbing to be used to obtain level foundations. Benching or leveling of earth may not be allowed, depending on the location of the proposed facility.

2.2.5 Temporary Excavation and Embankments: If the Contractor proposes to construct temporary roads or embankments and excavations for plant and/or work areas, he shall submit a plan for approval at least thirty days prior to scheduled start of said construction.

2.2.6 Post-Construction Cleanup of Obliteration: The Contractor shall obliterate all signs of temporary construction facilities, stockpiles of excess or waste materials, or any other vestiges of construction operations to the satisfaction of the Contracting Officer. It is anticipated that excavation, filling and plowing of temporary roads will be required to restore the area to conditions which will permit the growth of vegetation. These areas shall be topsoiled and seeded in conformance with The Technical Provisions, Division 2. Restoration to original contours is required.

2.2.7 Contractor's Erosion and Sedimentation Control Plan. Within ten calendar days of the receipt of Notice to Proceed, the Contractor shall furnish for the Contracting Officer's approval two copies of the Contractor's Erosion and Sedimentation Control Plan for all phases of the work. At the same time, two copies of the plan shall be submitted to Berks County Conservation District, Agriculture Center, Leesport, PA 19533 (Attention: Mr. Roman Speher, Executive Assistant) for review. A maximum of thirty calendar days will be required for review and approval.

2.3 Protection of Water Resources:

2.3.1 General: The Contractor shall not pollute streams, lakes or reservoirs with fuels, oils, bitumens, calcium chloride, acids or harmful materials. It is the responsibility of the Contractor to investigate and comply with all applicable Federal, State, County and Municipal laws concerning pollution of rivers and streams. All work under this contract shall be performed in such a manner that objectionable conditions will not be

created in streams through or adjacent to the project areas.

2.3.2 Erosion Control: The Contractor shall provide an erosion control plan for approval as specified in paragraph 2.2.7 above. Along with this, an attached description of work will be provided which outlines the methods and sequence of erosion control operations. The Contractor shall comply with the following:

- a. Protect the soils by use of temporary vegetation, or seeding and mulch, or by accelerating the establishment of permanent vegetation as rapidly as is consistent with construction schedules.
- b. Retard the rate of runoff from the construction site and control disposal of runoff.
- c. Trap sediment in runoff by means of approved sedimentation and erosion control devices or by approved spray operations. This includes pump discharge resulting from dewatering operations.
- d. Sprinkle or apply dust suppressors, or otherwise keep dust within tolerable limits on haul roads and at the site.
- e. Provide temporary measures for the control of erosion in the event construction operations are suspended for an appreciable length of time.
- f. Provide protection against discharge of pollutants such as chemicals, fuel, lubricants, sewage, etc., into streams.
- g. Locate sanitary facilities away from streams, wells, or springs.
- h. Surface drainage from cuts and fills within the construction limits, whether or not completed, and from waste disposal areas, shall be held in suitable sedimentation ponds or otherwise handled to keep the escape of sediment erosion within acceptable limits. Temporary erosion and sediment control measures such as berms, dikes, drains, or sedimentation basins shall be provided and maintained until permanent drainage and erosion control facilities are completed and operative. The area of bare soil exposed at any one time by construction operations should be held to a minimum. Any temporary culverts or bridge structures shall be removed upon completion of the project. Fill and waste areas shall be controlled to prevent contamination of streams.

2.3.3 Spillages: At all times of the year, special measures shall be taken to prevent chemicals, fuels, oils, greases, bituminous materials, waste washing, herbicides and insecticides, and cement and surface drainage from entering public waters.

2.4 Protection of Fish and Wildlife: The Contractor shall at all times perform all work and take such steps required to prevent any interference or disturbance to fish and wildlife within the Contract limits. The Contractor will not be permitted to alter water flows or otherwise disturb native habitat outside the contract limits. Fouling or polluting of water will not be permitted inside nor outside the contract limits.

2.5 Burning: Material may not be burned within the contract area.

2.6 Dust Control: The Contractor will be required to maintain all excavations, embankments, stockpiles, haul roads, permanent roads, temporary roads, detours, plant sites, waste areas, and all other work areas within or without the project boundaries free from dust which would cause the standards for air pollution to be exceeded or which would cause a hazard of nuisance to others. Approved temporary methods of stabilization consisting of sprinkling, chemical treatment, light bituminous treatment or similar methods will be permitted to control dust. Sprinkling, to be approved, must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times, and the Contractor must have sufficient competent equipment on the job to accomplish this if sprinkling is used. Dust control shall be performed as the work proceeds and whenever a dust nuisance or hazard occurs.

2.7 Erosion and Sediment Control Devices:

2.7.1 The following devices and methods of construction shall be utilized in order to control erosion and sedimentation. These items shall comply with the individual specification listed as follows:

- | | |
|---------------------------|-----------------------|
| a. Baled Straw Barrier | Form 408, Section 855 |
| b. Rock Barrier | Form 408, Section 856 |
| c. Inlet Riser Pipe | Form 408, Section 863 |
| d. Rock Lining | Form 408, Section 850 |
| e. Rock Energy Dissipator | Form 408, Section 851 |
| f. Rock Basin | Form 408, Section 853 |
| g. Brush Barrier | Form 408, Section 857 |
| h. Log Barrier | Form 408, Section 858 |

2.8 Sedimentation and Erosion Control Procedures:

2.8.1 Excavation areas shall be sloped where designated on the plans at a maximum 4% slope in the direction indicated as the work progresses. This shall be continued until such time that it becomes necessary to grade to the final grading line at which time additional temporary erosion control procedures shall be implemented as directed by the Contracting Officer. Such additional items will be paid for at their respective contract bid price.

2.8.2 All finished slopes shall be seeded and mulched in 15 feet increments with permanent in-season seeding at the full application rates specified for seeding and soil supplements and mulch.

2.8.3 All temporary grading areas shall be promptly seeded with Temporary Seeding and Mulching in accordance with these Technical Provisions, including stockpiled topsoil, borrow and waste areas, or any areas temporarily graded for drainage, etc. No inactive disturbed area shall be left unseeded for a duration greater than 20 days. All material to be wasted or stockpiled shall be placed in carefully selected areas approved by the Contracting Officer.

2.8.4 Any erosion control device which has been damaged or destroyed during construction under this contract shall be immediately replaced or repaired.

2.8.5 Erosion control measures shall be installed as early as practical, the pipes and inlets with riser pipes and earth dikes shall be installed to trap silt during the remaining grading operations.

2.9 Sequence of Operations - General Requirements:

2.9.1 Clearing operations may be started at the Contractor's discretion.

2.9.2 Place Erosion Check of Baled Straw adjacent to all proposed fill slopes.

2.10 Maintenance of Pollution Control Facilities During Construction: During the life of this contract, the Contractor shall maintain all facilities constructed for pollution control under this contract as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. During the construction period, the Contractor should conduct frequent training courses for his maintenance personnel. The curricula should include methods of detection of pollution, familiarity with pollution standards, and installation and care of vegetation covers, plants and other facilities to prevent and correct environmental pollution.

3. **PAYMENT:** The work called for under this Section is considered as incidental to the work of the contract and will be considered a subsidiary obligation of the Contractor.

4. **QUALITY CONTROL**

4.1 The Contractor shall establish and maintain quality control to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations, including but not limited to the following:

- a. Protection of land resources.
- b. Foundations, stumps, root mat and other structures removed to required elevations.
- c. Protection of Water resources.

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- d. Disposal Permits have been obtained.
- e. Disposal of debris.
- f. Collection of trash, waste, garbage, oil, chemicals, etc.
- g. Compliance with all Federal, State and local pollution control regulations.

A copy of these records as well as the records of corrective action taken, shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

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DIVISION 1 - GENERAL

SECTION 1B - CONSTRUCTION GENERAL

TO BE ISSUED
BY AMENDMENT

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DIVISION 2 -- SITE WORK

SECTION 2A -- SITE CLEARING

TO BE ISSUED
BY AMENDMENT

GRUBER PEST

DIVISION 2 -- SITE WORK

SECTION 2B -- EARTHWORK AND SITE GRADING

TO BE ISSUED
BY AMENDMENT

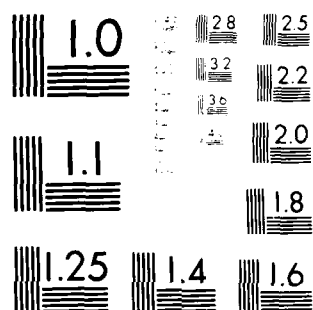
AD-A144 734

RESTORATION OF GRUBER WAGON WORKS BLUE MARSH LAKE BERKS 2/2
COUNTY PENNSYLVANIA(U) ARMY ENGINEER DISTRICT
PHILADELPHIA PA 11 AUG 78

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DIVISION 2 -- SITE WORK

SECTION 2C -- BUILDING EXCAVATION AND FILL

TO BE ISSUED
BY AMENDMENT

DIVISION 2 - SITE WORK
SECTION 2D
PEST CONTROL

1. GENERAL

1.1 Description of Work: The work of this section includes the following:

1.1.1 Soil treatment for termite control.

1.1.2 Treatment of wood structures for control of boring beetles.

1.1.3 Removal of wasp and other insect nests.

1.2 Quality Assurance:

1.2.1 In addition to the requirements of these specifications, comply with manufacturer's instructions and recommendations for the work, including preparation of substrate and application.

1.2.2 Treatment shall be done by a professional pest control operator, licensed in accordance with regulations of governing authorities for application of treatment solutions.

1.3 Job Conditions:

1.3.1 a. Soil Treatment: Do not apply soil treatment solution until excavating, filling and grading operations are completed, except as otherwise required in construction operations.

b. To insure penetration, do not apply soil treatment to frozen or excessively wet soils or during inclement weather. Comply with other handling and application instructions of the soil toxicant manufacturer.

1.3.2 Wood Treatment: Coordinate treatment of wood structures with the work of other trades.

1.4 Submittals: Product Data: Soil Treatment for Termite Control, Wood Treatment for Control of Boring Beetles: Submit copies of manufacturer's technical data and application instructions to the Contracting Officer for approval. (Submit within 28 days of Notice to Proceed.)

1.5 Guarantee: Furnish copies of written guarantee certifying that the applied soil poisoning treatment will prevent the infestation of subterranean termites and, that if subterranean termite activity is discovered during the guarantee period, the Contractor will re-treat the soil and also repair or replace damage caused by termite infestation. Provide guarantee for a period of 5 years from date of treatment.

2. PRODUCTS

2.1 Soil Treatment Solution:

2.1.1 Use an emulsible concentrate insecticide for dilution with water, specially formulated to prevent infestation by termites. Fuel oil will not be permitted as a diluent. Provide a working solution of one of the following chemical elements and concentrations:

- a. Chlordane, 1.0% in water emulsion.
- b. Aldrin, 0.5% in water emulsion.
- c. Dieldrin, 0.5% in water emulsion.
- d. Heptachlor, 0.5% in water emulsion.
- e. Chlordane and Heptachlor, 0.5% chlordane plus 0.25% Heptachlor in water emulsion.

2.1.2 Other solutions may be used as recommended, if acceptable to governing authorities. Use only soil treatment solutions which are not injurious to planting.

2.2 Wood Treatment Solution:

2.2.1 Use a residual pesticide labelled for wood borer control. Provide a working solution of Lindane in concentration as recommended by the manufacturer.

2.2.2 Other solutions may be used as recommended, if acceptable to governing authorities. Use only solutions which will not affect the appearance of the wood.

3. EXECUTION

3.1 Inspection: Contractor shall examine the areas and conditions under which soil treatment and wood treatment are to be applied, and notify the Contracting Officer in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.2 Application of Soil Treatment:

3.2.1 Surface Preparation: Remove foreign matter which could decrease effectiveness of treatment. Loosen, rake, and level soil to be treated, except previously compacted areas under slabs and foundations. Toxicants may be applied before placement of compacted fill under slabs, if recommended by toxicant manufacturer.

3.2.2 Application:

- a. Apply soil treatment solution within building areas and outside building perimeters. Comply with USDA recommended dosages.

- b. Allow not less than 12 hours for drying after application, before beginning concrete placement or other construction activities.
- c. Post signs in the areas of application warning workers that soil poisoning has been applied. Remove signs when areas are covered by other construction.
- d. Reapply soil treatment solution to areas disturbed by subsequent excavation or other construction activities following application.

3.3 Application of Wood Treatment:

3.3.1 Surface preparation: Remove foreign matter which could stain surfaces or decrease effectiveness of treatment.

3.3.2 Application:

- a. Apply wood treatment solution to all exposed wood. Paint or spray in accordance with manufacturer's recommendations. Comply with USDA recommended dosages.
- b. Allow drying time as recommended by manufacturer.
- c. Comply with recommended safety measures. (See 3.2.2.c above.)
- d. Reapply wood treatment solution to surfaces exposed by construction activities following application.

4. MEASUREMENT AND PAYMENT: Payment will be made on a lump sum basis for all pest control work, complete.

5. QUALITY CONTROL

5.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section.

5.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 2 - SITE WORK
SECTION 2E
FOUNDATION DRAINAGE SYSTEM

1. GENERAL

1.1 Description of Work: The extent of foundation drainage system work is shown on the drawings. Foundation drainage work includes the following:

1.1.1 Footing drainage system.

1.1.2 Cellar subfloor drainage system.

1.2 Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:

1.2.1 Excavation to footings (Division 2).

1.2.2 Drainage fill course below cellar floor (Division 2).

1.2.3 Applied dampproofing system (Division 7).

1.3 Applicable Publications: The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by references thereto:

1.3.1 American Society for Testing and Materials (ASTM) Publications:

a. C 654-73 Porous Concrete Pipe, Spec. for.

1.4 Submittals: Submit copies of Certification that installed materials conform to specified requirements and system was successfully checked and tested prior to covering with filtering and drainage fill.

2. PRODUCTS

2.1 Drainage Pipe and Fittings: Furnish drainage pipe complete with all required bends, reducers, adapters, couplings, collars, and joint materials.

2.1.1 Porous Concrete Pipe: ASTM C 654, "Standard-Strength" unless otherwise indicated.

2.2 Soil Materials:

2.2.1 Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense composite.

2.2.2 Drainage Fill: Uniformly graded mixture of natural or crushed gravel, crushed stone, and natural sand with 100% passing a 1-1/2" sieve and 0-5% passing a No. 50 sieve.

2.2.3 Filtering Material: Uniformly graded mixture of natural or crushed gravel, crushed stone, and natural sand, with 100% passing a 1/2" sieve and 0-5% passing a No. 50 sieve.

3. EXECUTION

3.1 Inspection: Examine the areas and conditions under which foundation drainage system work is to be performed. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.2 Installation:

3.2.1 Underfloor Drainage System:

- a. Excavate for underfloor drainage system after subgrade material has been compacted but before drainage fill course has been placed. Provide a clear horizontal distance between drain pipe and trench wall on both sides not less than 2 times the diameter of the drain pipe, unless otherwise shown. Grade the bottom of trench excavations to required slope and compact to a firm, solid bed for drain system.
- b. Apply and compact impervious fill material to raise low areas or where unsatisfactory bearing soil may occur.

2.3.2 Impervious Fill at Footings: Place impervious fill material on the subgrade adjacent to the bottom of the footing. Place and compact impervious fill to the dimensions indicated or, if not indicated, 6" deep and 12" wide.

3.2.3 Filtering Material:

- a. Place a supporting layer of filtering material over compacted subgrade where drainage pipe is to be laid to the depth indicated or, if not indicated, to a compacted depth of not less than 4".
- b. After testing of drain lines, place additional filtering material to a 4" depth around sides and top of drains.

3.2.4 Laying Drain Pipe: Lay drain pipe solidly bedded in filtering material. Provide full bearing for each pipe section throughout its length, to true grades and alignment, and continuous slope in the direction of flow.

3.2.5 Testing Drain Lines: Test or check lines before backfilling to assure free flow. Remove obstructions, replace damaged components, and re-test system until satisfactory.

3.2.6 Drainage Fill: Place drainage fill over drain lines after satisfactory testing and covering of drain lines with filtering material. Com-

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letely cover drain lines to a width of at least 6" on each side and 12" above top of pipe, unless more coverage is indicated on the drawings. Place fill material in layers not exceeding 3" in loose depth and compact each layer placed.

3.2.7 Fill: Apply impervious fill material over compacted drainage fill at footing drains, placing the material in layers not exceeding 6" in loose depth and thoroughly compacting each layer. Carry impervious fill to indicated elevations and slope away from building perimeter.

4. MEASUREMENT AND PAYMENT: Payment for foundation drainage system work will be made on a lump sum basis for all foundation drainage systems and related work, complete and installed. Payment for the item will include the following:

- 4.1 Excavation.
- 4.2 Damproofing and protection board.
- 4.3 Footing drainage system.
- 4.4 Cellar subfloor drainage system.
- 4.5 Fill and backfill.

5. QUALITY CONTROL:

5.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

5.1.1 Testing, as specified.

5.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 2 - SITE WORK
SECTION 2F
SITE UTILITIES

1. GENERAL

1.1 Related Documents: Sections 2B "Earthwork and Site Grading", 2C "Building Excavation and Fill" and 3A "Concrete Work" apply to the work of this section, except as otherwise indicated.

1.2 Description of Work: The extent of site utility work is shown on the drawings. The work of this section includes the following:

1.2.1 Corrugated metal pipe culverts with end sections, under gravel surfaced walk.

1.2.2 Corrugated metal pipe arch culvert tailrace section within building.

1.2.3 Underground fuel tank and supply line to Otto Engine.

1.3 Applicable Publications: The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by references thereto:

1.3.1 Underwriters Laboratories (UL) Publications:

a. Standard 58-1976 Tanks, Steel, Underground, for Flammable and Combustible Liquids. (Nov., 1977)

1.4 Submittals:

1.4.1 Submit copies of specifications, installation instructions and general recommendations by manufacturer of fuel storage tank to Contracting Officer for approval. Include published data or certified test data showing compliance with the specified requirements. (Submit within 35 days of Notice to Proceed.)

1.4.2 Submit fabricator's certification of corrugated metal pipe, pipe arch culvert and end sections to the Contracting Officer for approval. Comply with the applicable requirements of Section 707.2(i) of Form 408. (Submit within 35 days of Notice to Proceed.)

1.5 Job Conditions: Do not proceed with the installation of the work until other construction to receive the work is completed. Examine the conditions under which the work is to be performed. Do not proceed with the work until unsatisfactory conditions have been corrected.

2. PRODUCTS

2.1 Bituminous Coated Galvanized Metal Pipe, Pipe Arches and End Sections:

2.1.1 Pipe culvert under gravel surfaced walk shall comply with the applicable provisions of Section 707.2 of Form 408 for Class I Culvert Pipe.

2.1.2 Pipe arch culvert tailrace section shall comply with the applicable provisions of Section 707.2 of Form 408 for Class II Culvert Pipe.

2.1.3 End sections shall comply with the applicable provisions of Section 616.2 of Form 408 for Galvanized Metal End Sections. End sections shall be fully coated with bituminous material conforming to the requirements of Section 707.4 (c) of Form 408.

2.1.4 Bituminous coating shall comply with the applicable provisions of Section 707.4 of Form 408 for Type A, fully bituminous coated pipe.

2.2 Bedding: Fine aggregate complying with the requirements of Section 703.1 (b) of Form 408.

2.3 Backfill: Coarse aggregate complying with the requirements of Section 350.2 of Form 408.

2.4 Fuel Tank: Underground fuel tank shall be a standard size approximately 48" diameter by 6'-0" long, shall be constructed of 7 gauge steel, shall comply with UL 58 and shall bear the UL label. Tank shall be capable of holding approximately 550 gallons of gasoline. Openings for fill, vent, gauging and dump installation shall be provided.

2.4.1 The tank shall be painted with two coats of Koppers 505 butumastic coating: one shop coat and one field coat applied prior to installation.

2.4.2 Provide fill line of 4" galvanized pipe, extended to within 4" of the bottom of the tank. Provide galvanized weatherproof cap.

2.4.3 Provide 2" galvanized vent line with supports, as indicated on the drawings. Provide galvanized weatherproof vent cap with screen.

2.4.4 Provide galvanized guage line with 2" guage rod. Provide galvanized weatherproof cap.

2.4.5 Provide galvanized gasoline pipe underground to building, as indicated on the drawings.

2.4.6 Provide reinforced concrete pad with cast-in-place bolts, 1/4" x 3" steel hold-down straps and turnbuckles, as indicated on the drawings. Concrete shall be 4,000 psi.

3. EXECUTION

3.1 Installation of Culverts:

3.1.1 Trenching, bedding, laying and backfilling shall comply with the

applicable provisions of Section 601.3 of Form 408.

- a. Bedding shall be Class B.
- b. Backfill shall be coarse aggregate.

3.1.2 Pipe which is not true to alignment or which shows settlement after laying, and broken or damaged sections of pipe, shall be removed and replaced at no additional cost to the Government.

3.2 Installation of Fuel Tank:

3.2.1 Install and secure tank on concrete pad, as indicated. Unless otherwise indicated, the tank shall have adequate earth cover so that a pump can be above the suction well of the tank.

3.2.2 All piping takeoffs shall be done with swing joints.

3.2.3 All ferrous underground piping shall be painted with at least two coats of bitumastic coating, as specified, before backfilling.

4. MEASUREMENT AND PAYMENT: Payment for corrugated pipe culvert work will be made on a lump sum basis for all corrugated metal pipe and pipe arch culvert and related work, complete and installed. Payment for the item will include the following:

- 4.1 Excavation.
- 4.2 Bedding.
- 4.3 Pipe and end sections.
- 4.4 Backfill.
- 4.5 Concrete headwall.

5. QUALITY CONTROL: The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section. A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 2 - SITE WORK
SECTION 2G
GRAVEL SURFACING

1. GENERAL

1.1 Description of Work: The extent of the gravel surfacing work is shown on the drawings. The work of this section includes all exterior walks except as otherwise indicated.

1.2 Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:

1.2.1 Earthwork and Site Grading (Division 2).

1.3 Applicable Publications: The following publications of the issue listed below, but referred to thereafter by basic designation only, form part of this specification to the extent indicated by references thereto

1.3.1 American Society for Testing and Materials (ASTM) Publications:

- a. D 1556-64 Density of Soil in Place by the Sand-Cone Method,
(1974) Test for.
- b. D 1557-70 Moisutre-Density Relations of Soils, Using 10 lb.
(4.5-kg) Rammer and 18-in. (457-mm) Drop, Tests for.
- c. D 2049-69 Relative Density of Cohesionless Soils, Test for.
- d. D 2167-66 Density of Soil in Place by the Rubber-Balloon Method,
(1972) Test for.

1.4 Quality Assurance: Engage, at no additional expense to the Government, soil testing and inspection service acceptable to the Government to perform field testing for quality control during earthwork operations.

1.5 Submittals: Submit 2 copies of the following to the Contracting Officer.

1.5.1 Certification of drainage fill.

1.5.2 Certification of gravel surfacing.

1.5.3 Field density test reports.

2. PRODUCTS

2.1 Materials:

2.1.1 Porous Fill Base Course: Washed, uniformly graded mixture of crushed stone, or crushed or uncrushed gravel, complying with the applicable requirements of Section 703.3 of Form 408, Pennsylvania Number 2B.

2.1.2 Gravel Surfacing: Uniformly graded mixture of tan, crushed or uncrushed gravel, complying with the applicable requirements of Section 703.3 of Form 408, Pennsylvania Number 2A.

3. EXECUTION

3.1 Inspection: Examine the areas and conditions under which gravel surfacing work is to be performed. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.2 Compaction Requirements:

3.2.1 General: Control compaction during construction for compliance with the percentage of density specified.

3.2.2 Percentage of Maximum Density Requirements: Compact to not less than the following percentages of maximum dry density for materials which exhibit a well-defined moisture density relationship determined in accordance with ASTM D 1557; and not less than the following percentages of relative density determined in accordance with ASTM D 2049, for materials which will not exhibit a well-defined moisture density relationship.

- a. Base Course: Compact each layer of material at 95% maximum dry density or 90% relative dry density.
- b. Surface Course: Compact each layer of material at 95% maximum dry density or 90% relative dry density.

3.2.3 Moisture Control: Where the layer of material must be moisture conditioned before compaction, uniformly apply water to the layer of material, to prevent free water appearing on the surface during or subsequent to compaction operations.

3.3 Placement and Compaction:

3.3.1 Place materials in layers not more than 8" in loose depth for material compacted by heavy compaction equipment and not more than 4" in loose depth for material compacted by hand-operated tampers. Conform to indicated cross-section and thickness.

3.3.2 Before compaction, moisten or aerate each layer as necessary to provide the optimum moisture content of the material. Compact each layer to the required percentage of maximum dry density or relative dry density. Do not place material on surfaces that are muddy, frozen, or contain frost or ice.

3.4 Testing:

3.4.1 Allow testing service to inspect and approve base and surface courses.

- a. Perform field density tests in accordance with ASTM D 1556 (sand

cone method) or ASTM D 2167 (rubber balloon test), as applicable.

- b. Base Course and Surface Course: Make at least one field density test of each course for every 2000 sq. ft. of area, but in no case less than 3 tests.

3.5 Maintenance: Protect surfaced areas from traffic and erosion. Keep free of trash and debris. Repair and re-establish grades in settled, eroded and rutted areas.

4. MEASUREMENT AND PAYMENT: This work will be measured on the surface on a square yard basis. Payment for gravel surfacing work will be at the contract unit price per square yard for all gravel surfacing work, complete. Payment for the item will include the following:

- 4.1 Preparation of subgrade.
- 4.2 Base course.
- 4.3 Surface course.

5. QUALITY CONTROL

5.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

- 5.1.1 Testing.
- 5.1.2 Grading in accordance with finish grades as indicated.

5.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 2 - SITE WORK
SECTION 2H
LANDSCAPE DEVELOPMENT, GENERAL

1. GENERAL

1.1 Related Documents: The requirements of this section apply to landscape work specified in Section 2I, "Seeding".

1.2 Description of Work:

1.2.1 The extent of landscape development work is shown on the drawings. In addition to general requirements applicable to landscape work, this section includes requirements for the following:

- a. Placing of stockpiled topsoil.
- b. Furnishing and application of soil supplements.

1.2.2 Refer to other Division 2 sections for the requirements of general excavation, filling and grading in areas to receive landscape work.

1.2.3 Topsoil will be stockpiled for re-use in landscape work.

1.3 Quality Assurance: Work shall be done only by experienced personnel.

1.4 Submittals: Submit copies of product certification, as specified, to the Contracting Officer for approval.

1.5 Product Handling: Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery, and while stored at the site.

1.6 Job Conditions:

1.6.1 Examine the subgrade upon which work is to be performed, verify subgrade elevations and observe the conditions under which work is to be performed. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer.

1.6.2 Planting Time: Plant only during normal planting seasons. Correlate planting with specified maintenance period. Comply with the applicable provisions of Section 804.3(a) of Form 408.

1.6.3 Utilities: Determine location of underground utilities and perform work in a manner which will avoid possible damage. Do not permit heavy equipment such as trucks, rollers or bulldozers to damage utilities. Maintain grade stakes set by others until removal is mutually agreed upon by all parties concerned.

1.7 Guarantee: Guarantee grass through the specified maintenance per-

iod, and until final acceptance.

2. PRODUCTS

2.1 Soil Supplements:

2.1.1 Lime: Pulverized agricultural limestone complying with the applicable provisions of Section 804.2(a) of Form 408.

2.1.2 Fertilizer: Commercial fertilizer complying with the applicable provisions of Section 804.2(a) of Form 408.

3. EXECUTION

3.1 Installation:

3.1.1 General:

- a. Schedule the work in accordance with the Project Schedule, working within seasonal limitations (See Section 2A, 2.1).
- b. Cooperate with other trades working in and adjacent to the landscape work areas. Examine drawings which show the development of the entire site and become familiar with the scope of other work required.

3.1.2 Placing Stockpiled Topsoil: Spread topsoil over all areas previously stripped of topsoil. (Refer to Section 2A.) Comply with the applicable provisions of sections 803.1 and 803.3 of Form 408.

3.1.3 Tillage: Comply with the applicable provisions of Section 804.3(b) of Form 408.

3.1.4 Application of Soil Supplements: Comply with the applicable provisions of Section 804.3(c) of Form 408.

3.2 Landscape Maintenance:

3.2.1 Begin maintenance period immediately after planting of landscape materials.

3.2.2 For detailed maintenance requirements, refer to Section 2I. Maintain for the period required to establish an acceptable stand of grass (defined in Section 2I), but not less than 60 days. If seeded in fall and not given full 60 days of maintenance, or if not considered acceptable at that time, continue maintenance the following spring until acceptable stand is established.

3.3 Inspection and Acceptance:

3.3.1 When the landscape work is completed, including maintenance, the

Contracting Officer will, upon request, make an inspection to determine acceptability. Where inspected landscape work does not comply with the requirements, replace rejected work and continue specified maintenance until reinspected by the Contracting Officer and found to be acceptable.

3.3.2 Refer to Section 2I for specific requirements governing acceptability of landscape work.

3.4 Clean-Up, Protection, and Repairs:

3.4.1 During landscape work, store materials and equipment where directed. Keep pavements clean and work area in an orderly condition.

3.4.2 Protect landscape work from damage and deterioration. Protect from unauthorized persons (trespassers), as well as from operations by other trades, and landscape operations. Wherever possible, avoid replacement of damaged work, by treating or repairing to restore work to an acceptable condition as directed by Contracting Officer.

4. QUALITY CONTROL

4.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

4.1.1 Compliance with finish grades as indicated.

4.1.2 Scheduling.

4.1.3 Maintenance.

4.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 2 - SITE WORK
SECTION 21
SEEDING

1. GENERAL

1.1 Related Documents: Section 2H "Landscape Development, General" applies to the work of this section.

1.2 Description of Work: The extent of the seeding work is shown on the drawings and includes the seeding of all areas affected by excavation, filling and grading and the reconditioning of existing grassed areas damaged by construction operations. The types of work required include the following:

1.2.1 Fine grading and preparation.

1.2.2 Seeding.

1.2.3 Replanting of unsatisfactory or damaged areas.

1.3 Submittals: Submit seed vendor's certified statement for grass seed mixture, stating botanical and common name, percentage by weight, and percentages of purity, germination, and weed seed for each grass seed species. Certification shall be in accordance with applicable provisions of Section 804.2(b) of Form 408.

2. PRODUCTS

2.1 Grass Seed: Provide fresh, clean, new-crop seed complying with the applicable provisions of Section 804.2(b) of Form 408. Provide seed of the grass species, proportions and minimum percentages of purity, germination, and maximum percentage of weed seed, as specified therein for Formula D.

2.2 Mulch: Provide mulching materials complying with the applicable provisions of Section 805.2(a) of Form 408.

2.3 Soil Retention Blanket: Provide soil retention blanket complying with the applicable provisions of Section 806.2(b) of Form 408.

3. EXECUTION

3.1 Installation:

3.1.1 Soil Preparation: Refer to Section 2H "Landscape Development, General" for requirements for placing of stockpiled topsoil and addition of soil supplements.

- a. Grade to a smooth, even surface with a loose, uniformly fine texture. Roll and rake and remove ridges and fill depressions, as required to meet finish grades. Limit fine grading to areas which can be planted within the immediate future.

- b. Moisten prepared areas before planting if soil is very dry. Water thoroughly and allow surface to dry off before planting. Do not create a muddy soil condition.
- c. Restore prepared areas to specified condition if eroded or otherwise disturbed after fine grading and prior to planting.

3.1.2 Seeding: Comply with the applicable provisions of Section 804.3(e) of Form 408, except as otherwise specified.

- a. Do not use wet seed or seed which is moldy or otherwise damaged in transit or storage.
- b. Sow seed using a spreader or seeding machine. Do not seed when wind velocity exceeds 5 mi. per hr. Distribute seed evenly over entire area by sowing equal quantity in 2 directions at right angles to each other.
- c. Sow not less than the quantity of seed specified.
- d. Rake seed lightly into top 1/8" of soil, roll lightly, and water with a fine spray.
- e. Protect seeded slopes against erosion with soil retention blanket, as indicated. Comply with the applicable provisions of Section 806.3(b) of Form 408.
- f. Protect seeded areas by spreading specified mulch after completion of seeding operations. Comply with the applicable provisions of Section 805.3(a) of Form 408.

3.2 Reconditioning:

3.2.1 Recondition existing grass areas damaged by Contractor's operations including storage of materials or equipment and movement of vehicles. Also recondition existing grass areas where minor regrading is required.

3.2.2 Provide seed and soil supplements as specified for new installation, and as required to provide satisfactorily reconditioned grass areas. Provide topsoil as required to fill low spots and meet new finish grades.

3.2.3 Cultivate bare and compacted areas thoroughly.

3.2.4 Remove diseased or unsatisfactory grass areas; do not bury into soil. Remove topsoil containing foreign materials resulting from Contractor's operations including oil drippings, stone, gravel and other construction materials.

3.2.5 Where substantial grass remains (but is thin), mow, rake, aerate if compacted, fill low spots, remove humps and cultivate soil, fertilize, and seed. Remove weeds before seeding or if extensive, apply selective chemical

weed killers as required. Apply a mulch, if required, to maintain moist condition.

3.2.6 Water newly planted areas and keep moist until new grass is established.

3.3 Maintenance:

3.3.1 Begin maintenance of grass immediately after each area is planted and continue for the period specified under Section 2H "Landscape Development, General". Maintain in accordance with Section 804.3(i) of Form 408, except as otherwise specified.

3.3.2 Maintain grass by watering, fertilizing, weeding, mowing, trimming, and other operations such as required to establish acceptable grass, free of eroded or bare areas.

3.3.3 Maintain mulch in accordance with the applicable provisions of Section 805.3(c) of Form 408.

3.3.4 Replant bare areas using same materials specified.

3.3.5 Watering: Provide and maintain temporary piping, hoses and watering equipment as required to convey water from water sources and to keep grass areas uniformly moist as required for proper growth. Arrange watering schedule to avoid walking over muddy and newly seeded areas. Use equipment and water to prevent puddling and water erosion and displacement of seed or mulch.

3.3.6 Mow grass as soon as there is enough top growth to cut with mower set at the specified height. Repeat mowing as required to maintain specified height. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Time initial and subsequent mowings as required to maintain grass height of 1 1/2" to 2". Do not mow lower than 1 1/2".

3.3.7 Apply fertilizer after first mowing and when the grass is dry. Comply with the applicable provisions of Section 804.3(c) of Form 408.

3.4 Acceptance: Seeded areas will be acceptable provided all requirements, including maintenance, have been complied with, and a healthy, uniform, close stand of the specified grass is established, free of weeds, bare spots and surface irregularities.

4. MEASUREMENT AND PAYMENT: This work will be measured on the surface on a square yard basis.

4.1 Payment for seeding work will be at the contract unit price for square yard for all seeding work, complete and installed. Payment for the item will include the following:

4.1.1 Placing of stockpiled topsoil.

4.1.2 Soil supplements.

4.1.3 Fine grading and preparation.

4.1.4 Seeding.

4.1.5 Mulching.

4.1.6 Reconditioning.

4.1.7 Maintenance.

4.2 Payment for slope protection work will be at the contract unit price per square yard for soil retention blanket and staples, complete and installed.

5. QUALITY CONTROL: The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section. A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

GRUBER REST

DIVISION 3 -- CONCRETE

SECTION 3A -- CONCRETE WORK

TO BE ISSUED
BY AMENDMENT

GRUBER REST

DIVISION 4 - MASONRY

SECTION 4A - UNIT MASONRY WORK

SECTION 4B - STONework

TO BE ISSUED
BY AMENDMENT

GROUP 1 REST

DIVISION 5 - METALS

SECTION 5A - METAL FABRICATIONS

TO BE ISSUED
BY AMENDMENT

DIVISION 5 - METALS
SECTION 5B
ORNAMENTAL METALS

1. GENERAL

1.1 Description of Work: The work of this section includes but is not necessarily limited to the following custom iron castings:

1.1.1 Stove parts.

1.1.2 Forge equipment parts.

1.1.3 Urinal bodies.

1.2 Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:

1.2.1 Forge repair (Division 4).

1.2.2 Repair of forge equipment (Division 11).

1.2.3 Repair of pot-bellied stoves (Division 12).

1.2.4 Reproduction of original urinals (Division 12).

1.3 Applicable Publications: The following publications of the issues listed below, but referred to thereafter by basis designation only, form a part of this specification to the extent indicated by references thereto:

1.3.1 American Society for Testing and Materials (ASTM) Publications:

- a. A 48-74 Gray Iron Castings, Spec. for.
- b. A 319-71 Gray Iron Castings for Elevated Temperatures for Non-Pressure Containing Parts, Spec. for.
- c. G 286-77 Porcelain Enamel and Ceramic-Metal Systems, Def. of Terms Relating to.
- d. A 536-72 Ductile Iron Castings, Spec. for.
- e. C 660-70 Gray Iron Castings for Porcelain Enameling, Rec.
(1976) Practices for Production and Preparation of.

1.4 Submittals: The following items shall be submitted to the Contracting Officer for approval:

1.4.1 Certification: Submit copies of the foundry's certification of all alloys used in the work.

1.4.2 Samples: Submit a sample of each type of custom cast unit. Units which are acceptable and remain undamaged through submittal, review and field comparison procedures may be used in the work.

1.5 Job Conditions: Coordinate custom casting work with porcelain enameling and stove and equipment repair work.

2. PRODUCTS

2.1 Castings: Cast iron shall be Class 25 gray iron complying with ASTM A 48 except as otherwise specified.

2.1.1 Cast iron stove parts and firepot parts shall be Class II gray iron complying with ASTM A 319.

2.1.2 Cast iron urinal bodies shall be gray iron complying with ASTM C 660.

2.1.3 Cast iron shafts, gears and other working parts of forge blowers and associated equipment shall be Grade 65-45-12 or Grade 80-44-05 ductile iron complying with ASTM A 536.

2.1.4 Cast iron blower housings and similar parts shall be Class 25 gray iron complying with ASTM A 48 or Grade 65-45-12 ductile iron complying with ASTM A 536.

2.2 Fabrication:

2.2.1 Fabricate patterns to the shapes and dimensions required to produce new units which substantially match the existing original units in all respects.

2.2.2 Cast and finish units as indicated, to produce surface textures substantially equal to those of the existing original units.

2.3 Adjust: Recast and finish units which are damaged or which fail during fabrication, finishing, assembly, installation or trial operation.

3. QUALITY CONTROL

3.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

- a. Shapes and dimensions matching those of existing original units.
- b. Satisfactory functioning of completed products.

3.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

GRUBER REST

DIVISION 6 - WOOD

SECTION 6A - CARPENTRY
SECTION 6B - ARCHITECTURAL WOODWORK

TO BE ISSUED
BY AMENDMENT

DIVISION 7 - THERMAL AND MOISTURE CONTROL
SECTION 7A
BITUMINOUS DAMPPROOFING

1. GENERAL

1.1 Description of Work: The extent of surfaces to receive bituminous (liquid) dampproofing is shown on the drawings. Applications of bituminous dampproofing include, but are not necessarily limited to exterior structure and wall surfaces below grade.

1.2 Quality Assurance:

1.2.1 Obtain primary dampproofing materials from only one manufacturer.

1.2.2 Dampproofing work shall be performed by an experienced firm who specializes in bituminous dampproofing.

1.3 Submittals: Furnish copies of manufacturer's specifications, installation instructions and general recommendations for each required dampproofing material to the Contracting Officer for approval. Include manufacturer's certification or other data substantiating that the materials comply with the requirements of these specifications, and are recommended by the manufacturer for the application shown or specified. (Submit within 21 days of notice to proceed.)

1.4 Job Conditions:

1.4.1 Do not proceed with dampproofing work until blocking, nailers, piping, conduit and other projections through the substrate have been installed, with substrate properly patched and sealed or flashed to receive the dampproofing.

1.4.2 When ambient temperature is 40°F. or less and falling, do not proceed with dampproofing. Do not apply dampproofing materials to frozen substrates or to any substrate in a condition not complying with manufacturer's recommendations.

1.4.3 The Contractor shall examine the substrates and the conditions under which the dampproofing is to be applied, and advise the Contracting Officer in writing of unsatisfactory conditions. Do not proceed with the dampproofing work until unsatisfactory conditions have been corrected.

2. PRODUCTS

2.1 Materials:

2.1.1 General: Manufacturers offering bituminous dampproofing products to comply with the requirements include the following:

- a. Celotex Corp.
- b. Emulsified Asphalts, Inc.
- c. Flintkote Co.
- d. Karnak Chemical Corp.
- e. J. & P. Petroleum Products
- f. Sonneborn/Contech.

2.1.2 Asphalt Emulsion Dampproofing Material: Manufacturer's standard asphalt and water emulsion, recommended for below-grade exterior applications to either damp (green) or dry substrates, compounded to penetrate the substrate and build to a moisture-resistant but breathing type of firm, elastic coating. Provide heavy fibrated type mastic emulsion.

2.1.3 Protection Course: 1/8" thick, asphalt/asbestos rigid composition board, formed under heat and pressure.

3. EXECUTION

3.1 Preparation of Substrate: Clean the substrate of dirt, oil, loose materials and other substances which interfere with penetration, bond or performance of dampproofing materials.

3.2 Installation:

3.2.1 General:

a. Apply dampproofing to surfaces wherever shown, including exterior walls of basement spaces and crawl spaces below grade which will be in contact with earthwork or other backfill.

b. Cant Strips, Fillers and Extension of Coatings: On exterior surfaces, where lower edge of dampproofing terminates at a horizontal projection (including footings under walls), provide a 2" x 2" bituminous grout cant strip. Mix sand with the specified bituminous material to form a plastic grout; form and compact in place. Provide bituminous grout fillers where shown and wherever required to close openings in the substrate. Extend coatings a distance of 12" onto adjoining walls, but do not extend onto surfaces to be exposed to view.

c. Protect other work from spillage of dampproofing materials, and prevent materials from penetrating and clogging drains and conductors. Replace or restore other work which is soiled or otherwise damaged by the installation of the dampproofing and associated work.

3.2.2 Asphalt Emulsion on Exterior Surfaces: Apply coat of fibrated, mastic, asphalt emulsion dampproofing material, by trowelling onto the substrate at a uniform rate of 1.0 gal. per 15 sq. ft., to produce a uniform dry film not less than 1/16" thick.

3.2.3 Protection Course: Install protection course in accordance with manufacturer's recommendations.

4. QUALITY CONTROL

4.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section.

4.1.1 Examination of substrate.

4.1.2 Compliance with dry film thickness requirements.

4.1.3 Integrity of protection course at the time of backfilling.

4.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 7 - THERMAL AND MOISTURE CONTROL
SECTION 7B
BUILDING INSULATION

1. GENERAL

1.1 Description of Work: The extent of each type of general building insulation work is shown on the drawings. The applications of building insulation are generally limited to the Mechanical Room, and include the following:

1.1.1 Concealed board-type plaster base building insulation.

1.1.2 Perimeter insulation of on-grade floor slab.

1.1.3 Concealed blanket-type building insulation.

1.2 Quality Assurance: The thicknesses shown are for the thermal conductivity (k-value at 75°F.) specified for each material. Provide adjusted thicknesses as directed for the use of material having a different thermal conductivity.

1.3 Submittals: Submit copies of manufacturer's specifications and installation instructions for each type of required insulation to the Contracting Officer for approval. Include data substantiating that the materials comply with specified requirements. (Submit within 28 days of Notice to Proceed.)

1.4 Product Handling:

1.4.1 Protection from Deterioration: Do not allow insulation materials to become wet or soiled, or covered with ice or snow. Comply with manufacturer's recommendations for handling, storage and protection during installation. Protect plastic insulation from exposure to sunlight.

1.4.2 Fire hazard: Do not deliver plastic insulation materials to the project site ahead of the time of installation. Protect at all times against ignition. Complete the installation and concealment of plastic materials as rapidly as possible in each area of work.

1.5 Job Conditions: Examination of Substrate: The Contractor shall examine the substrate and the conditions under which the insulation work is to be performed, and notify the Contracting Officer in writing of unsatisfactory conditions. Do not proceed with the insulation work until unsatisfactory conditions have been corrected.

2. PRODUCTS

2.1 Materials:

2.1.1 Extruded Polystyrene Plastic Board Insulation, Direct Plaster Base:

Rigid, closed-cell, expanded polystyrene board complying with FS-HH-I-524, Type II, Class B; 30 psi compressive strength; 1.0 per-inch maximum vapor transmission; 0.10% maximum water absorption; manufacturer's standard sizes. Provide manufacturer's standard cut-cell surfaced units as based for direct application of plaster, with thermal conductivity (k-value at 75°F.) of 0.25. Provide "Styrofoam IB" (Dow Chemical); Thickness: 2".

2.1.2 Extruded Polystyrene Plastic Board Perimeter Insulation: Rigid, closed-cell, expanded polystyrene board complying with FS-HH-I-524, Type II, Class B; 30 psi compressive strength; 1.0 perm per inch maximum water absorption; thermal conductivity (k-value at 75°F.) of 0.20; manufacturer's standard sizes. Provide Styrofoam SM; Dow Chemical; thickness 1-1/2".

2.1.3 Mineral Fiber Blanket Insulation: Glass or other inorganic fibers and resinous binders formed into flexible blankets or semi-rigid sheets, complying with FS-HH-I-521; Type I; density of not less than 1.5 lbs. per cu. ft; thermal conductivity (k-value at 75°F.) of 0.27. Modify standard sizes as required to accomodate existing framing. Provide one of the following:

- a. Kraft Faced Blanket: Asphalt and Kraft paper vapor barrier laminated to one face, with 1.0" flanges on long edges; Thickness: 6".
- b. Unfaced, Self-Supporting Blanket: Semi-rigid blanket or sheet, as required for units to be self-supporting when cut slightly over sized and placed in space to be insulated (no facing required); Thickness: 6".

2.1.4 Miscellaneous Materials:

- a. Adhesive for Bonding Insulation: The type recommended by the insulation manufacturer.
- b. Mechanical Anchors: Type and size as recommended by the insulation manufacturer for the type of application shown and condition of substrate.

3. EXECUTION

3.1 Installation:

3.1.1 General:

- a. Comply with manufacturer's instructions for the particular conditions of installation in each case. If printed instructions are not available or do not apply to the project conditions, consult the manufacturer's technical representative for specific recommendations before proceeding with the work.
- b. Extend insulation full thickness as shown over entire surface to be insulated. Cut and fit tightly around obstructions, and fill

voids with insulation and mastic.

- c. Apply a single layer of insulation of the required thickness, unless otherwise shown or required to make up the total thickness.

3.1.2 Apply insulation units of the type shown to the substrate by the method indicated, complying with the manufacturer's recommendations. Provide permanent placement and support of units.

- a. Bond plastic board insulation plaster base units to concrete masonry walls with adhesive.
- b. If temporary support of perimeter insulation is required before backfilling, set units in adhesive applied in accordance with manufacturer's instructions.
- c. Fasten mineral fiber blanket insulation units between ceiling joists. Set vapor barrier faced units with vapor barrier to inside of construction, except as otherwise shown. Do not obstruct ventilation spaces.

4. QUALITY CONTROL

4.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

4.1.1 Acceptability of substrate.

4.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 7 - THERMAL AND MOISTURE CONTROL
SECTION 7C
SLATE ROOFING

1. GENERAL

1.1 Description of Work: The extent of slate roofing is shown on the drawings. The work of this section includes but is not necessarily limited to the following:

1.1.1 Removal of temporary roofing. Removal and salvage of temporary plywood and sheathing. Removal of deteriorated original slating lath. Removal and salvage of existing metal snow guards and snow guard brackets.

1.1.2 Installation of new slating lath.

1.1.3 New slate roofing.

1.1.4 Installation of snow guards.

1.2 Related Work in Other Sections: The following items of associated work are involved in other sections of these specifications:

1.2.1 Slating lath (Division 6).

1.2.2 Flashing (Division 7).

1.2.3 Metal snow guards and snow guard brackets (Division 5).

1.2.4 Wood snow guards (Division 6).

1.3 Quality Assurance: Slate roofing work shall be done by mechanics experienced and specializing in the types of roofing required.

1.4 Submittals: The following items shall be submitted to the Contracting Officer for approval:

1.4.1 Manufacturer's Data: Copies of slate producer's specifications and installation instructions and recommendations. (Submit within 21 days of Notice to Proceed.)

1.4.2 Samples:

a. Samples of slate. (Submit within 28 days of Notice to Proceed.)

b. Samples of slaters nails. (Submit within 28 days of Notice to Proceed.)

1.5 Product Handling: Handle and pile slates with care and protect from dampness and freezing during storage.

2. PRODUCTS

2.1 Slate shall be equal to genuine Unfading Buckingham - Virginia Slate as furnished by the Buckingham - Virginia Slate Corporation, 4110 Fitzhugh Avenue., Richmond, Virginia 23230, 3/16" thick, 12" x 24" except for special sizes as indicated. Pennsylvania slate will not be acceptable as a substitute for this material. All slate shall be hard, dense, sound rock, machine punched for two nails each at the locations indicated. All exposed corners shall be practically full. No broken corners on covered ends which sacrifice nailing strength or the laying of a watertight roof will be allowed. No broken or cracked slates shall be used.

2.2 Nails shall be large-head slater's hard copper wire nails, cut copper or cut brass slating nails, of sufficient length to adequately secure the slates without completely penetrating the lath.

2.3 Slater's cement shall be an elastic waterproof material that will not stain masonry, corrode copper, or be adversely affected by long exposure to extreme outside temperature. Cement shall form a thin tough skin on exposed surfaces, but remain plastic underneath. Cement color shall match generally the color of the roofing.

3. EXECUTION

3.1 Preparaion of Substrate:

3.1.1 Remove and salvage existing metal snow guards and snow guard brackets. Remove temporary roofing. Remove and salvage temporary sheathing, taking care not to damage sheathing and sound original slating lath.

3.1.2 Install new slating lath in place of deteriorated original lath. Install in original locations.

3.1.3 Examine the surface condition of the substrate and the conditions under which roofing work is to be performed. Do not proceed with the work until unsatisfactory conditions have been corrected. Clean the substrate of projections and substances detrimental to the work.

3.2 Installation:

3.2.1 General: Comply with the instructions and recommendations of the roofing materials manufacturer, except as otherwise indicated. It is required that roofing work be watertight for normal weather exposures, and not deteriorate in excess of normal weathering.

3.2.2 Omit roofing felt underlayment.

3.2.3 Slate shall project at the eaves and gable ends as indicated.

3.2.4 Slate shall be laid in horizontal courses with approximately 3" headlap, and each course shall break joints with the preceding one by 6".

3.2.5 Slates at the eaves shall be doubled and canted 1/4" by a wooden cant strip. Under-eave slate shall be approximately 3" longer than the exposure of the first course.

3.2.6 Snow guard brackets shall be set between slates and hooked over lath as indicated.

3.2.7 All slate shall be fastened with two nails. Nails shall not be driven in so far as to produce a strain on the slate.

3.2.8 Slates overlapping sheet metal work shall have the nails so placed as to avoid puncturing the sheet metal. Exposed nails shall be permissible only in top courses where unavoidable.

3.2.9 Cover all exposed nail heads with elastic cement. Ridge slates shall be laid in elastic cement spread thickly over unexposed surface of under courses of slate, nailed securely in place and carefully pointed with elastic cement.

3.2.10 Build in and place all flashing pieces.

3.2.11 Neatly fit slate around all pipes and other vertical surfaces.

3.2.12 Valleys shall be laid to form "closed" valleys.

3.2.13 Ridges shall be laid to form "strip saddle" ridges and "combing" ridges, as indicated.

3.2.14 Upon completion, all slate shall be sound, whole and clean, and the roof shall be left watertight and neat in every respect.

4. MEASUREMENT AND PAYMENT: Payment for slate roofing will be made on a lump sum basis for all slate roofing, complete and installed. Payment for the item will include the following:

4.1 Removal of existing snow guards, temporary roofing, sheathing and deteriorated original lath.

4.2 New replacement lath.

4.3 New slate roofs.

4.4 New flashing.

4.5 New and existing (repaired) snow guards.

5. QUALITY CONTROL

5.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by

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this section, including but not limited to the following:

5.1.1 Acceptability of substrate.

5.1.2 Conformity of coursing and layout with original roofing, as indicated.

5.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 7 - THERMAL AND MOISTURE CONTROL
SECTION 7D
METAL ROOFING

1. GENERAL

1.1 Description of Work: The extent of metal roofing is shown on the drawings. The following types of work are specified in this section:

1.1.1 Flat seam metal roofing.

1.1.2 Standing seam metal roofing.

1.2 Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:

1.2.1 Removal of existing metal roofing and deteriorated board sheathing (Division 6).

1.2.2 New replacement board sheathing (Division 6).

1.2.3 Plywood sheathing, reused (Division 6).

1.3 Applicable Publications: The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by references thereto:

1.3.1 Sheet metal and Air Conditioning Contractors National Association, Inc. (SMACNA) Publications

a. Architectural Sheet Metal Manual, Second Edition, 1968.

1.3.2 American Society for Testing and Materials (ASTM) Publications:

a. B 370-77 Copper Sheet and Strip for Building Construction, Spec. for.

b. B 101-40 Lead-Coated Copper Sheets, Spec. for.
(1971)

1.3.3 Federal Specifications:

a. TT-C-494 Coating Compound; Solvent Type.

b. L-P-512B Plastic Sheet (Sheeting); Polyethylene.

1.4 Quality Assurance:

1.4.1 Metal roofing work shall be done by mechanics with successful experience with the installation of metal roofing of similar type and equivalent scope.

1.4.2 Except as otherwise shown or specified, comply with applicable recommendations and details of the "Architectural Sheet Metal Manual" by SMACNA. Conform to the dimensions and profiles shown.

1.5 Submittals: The following items shall be submitted to the Contracting Officer for approval:

1.5.1 Manufacturer's Data: Copies of metal manufacturer's specifications, installation instructions and general recommendations for roofing applications. Include manufacturer's certification or other data substantiating that the materials comply with the requirements of this specification. (Submit within 14 days of Notice to Proceed.)

1.5.2 Samples: 5, 12" square samples of specified metal to be used as roofing. (Submit within 14 days of Notice to Proceed.)

2. PRODUCTS

2.1 Metal Roofing Materials:

2.1.1 Copper Roofing Sheets: Provide copper sheet or strip complying with ASTM B 370; cold-rolled; special sizes as indicated.

- a. Weight: 20 oz. per sq. ft. (0.027" thick), unless otherwise indicated.
- b. Finish: Provide lead coating of 0.06 lbs. per sq. ft. on surfaces exposed to view; comply with ASTM B 101.

2.1.2 Miscellaneous Materials:

- a. General: Provide the materials and types of fasteners, solder, coatings, separators, and accessory items as recommended by the sheet metal manufacturer for metal roofing work, except as otherwise indicated.
- b. Bituminous Coating: Cold-applied asphaltic coating, complying with FS TT-C-494, Type II; 12 mils minimum dry film thickness, except as otherwise indicated. Provide inert type non-corrosive compound.
- c. Polyethylene Underlayment: 6-mil carbonated polyethylene film complying with FS L-P-512.
- d. Adhesive Polyethylene Underlayment: 4-mil polyethylene film with 60-mil rubberized asphalt adhesive coating, similar to "Bituthene" (W. R. Grace & Co.).
- e. Paper Slip Sheet: 6-lb., rosin-sized building paper.

3. EXECUTION

3.1 Installation, General:

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3.1.1 Examine the substrate and the conditions under which metal roofing will be installed. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.1.2 Manufacturer's Recommendations: Except as otherwise shown or specified, comply with the recommendations and instructions of the manufacturer of the sheet metal being fabricated and installed.

3.1.3 Separate dissimilar metals from each other by painting each metal surface in the area of contact with a bituminous coating, or by applying adhesive polyethylene underlayment to each metal surface, or by other permanent separation as recommended by the manufacturers of the dissimilar metals.

3.1.4 Install polyethylene film underlayment and paper slip sheet on substrate under metal roofing, to the greatest extent possible. Use adhesive application for temporary anchorage, wherever possible, to minimize the use of mechanical fasteners under metal roofing. Lap joints 2" minimum.

3.1.5 Coat the back side of metal roofing with bituminous coating wherever it will be in contact with wood, ferrous metal or cementitious construction.

3.1.6 Form and fabricate sheets, seams, strips, cleats, valleys, ridges, edge treatments, integral flashings and other components of the metal roofing to the profiles, patterns and drainage arrangements shown, and as required for permanently leakproof construction. Provide for thermal expansion and contraction of the work. Shop-fabricate materials to the greatest extent possible.

3.1.7 Fabricate and install work with lines and corners of exposed units true and accurate. Form exposed faces flat and free of buckles, excessive waves and avoidable tool marks, considering the temper and reflectivity of the metal. Provide uniform, neat seams with minimum exposure of solder. Except as otherwise shown, fold back the sheet metal to form a hem on the concealed side of exposed edges.

3.1.8 Conceal fasteners and expansion provisions wherever possible in exposed work, and locate so as to minimize the possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

3.1.9 Tin uncoated copper surfaces at the edges of sheets to be soldered, for a width of 1 1/2", using solder recommended for copper work. Where surfaces to be soldered are lead-coated, do not tin the edges, but wire brush the lead-coating before soldering.

3.1.10 Protect the completed metal roofing work during the remainder of the construction period.

4. MEASUREMENT AND PAYMENT: Payment for metal roofing will be made on a lump sum basis for all metal roofing, complete and installed. Payment for the item will include the following:

- 4.1 Removal of existing metal roofing and deteriorated board sheathing.
- 4.2 New replacement board sheathing.
- 4.3 Installation of salvaged plywood sheathing.
- 4.4 New flat seam metal roofing.
- 4.5 New standing seam metal roofing.
- 4.6 New flashing.

5. QUALITY CONTROL

5.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

5.1.1 Acceptability of substrate.

5.1.2 Conformity of sheet and strip sizes, type and location of seams and overall layout with original roofing, as indicated.

5.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 7 - THERMAL AND MOISTURE CONTROL
SECTION 7E
FLASHING AND SHEET METAL

1. GENERAL

1.1 Description of Work: The extent of each type of flashing and sheet metal work is shown on the drawings. The following types of work are specified in this section:

1.1.1 Metal flashing and counter flashing.

1.1.2 Metal gutters and downspouts, including stock hooks and brackets, installation of custom-fabricated hooks and brackets and reinstallation of existing hooks and brackets.

1.1.3 Metal flue liners.

1.2 Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:

1.2.1 Custom-fabricated hooks and brackets, cleaning of existing hooks and brackets (Division 5).

1.2.2 Metal roofing (Division 7).

1.3 Applicable Publications: The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by references thereto:

1.3.1 Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) Publications:

a. Architectural Sheet Metal Manual, Second Edition, 1968.

1.3.2 American Society for Testing and Materials (ASTM) Publications:

a. A 167-74 Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip, Spec. for.

b. B 101-40 Lead-Coated Copper Sheets, Spec. For.
(1971)

c. B 370-77 Copper Sheet and Strip for Building Construction, Spec. for.

1.4 Submittals: Submit copies of specifications, installation instructions and general recommendations by the manufacturers of flashing and sheet metal materials to the Contracting Officer for approval. Include published data or certified test data for each material showing compliance with the specified requirements.

1.5 Job Conditions: Do not proceed with the installation of flashing and sheet metal work until substrate construction and other construction to receive the work is completed. Examine the substrate and the conditions under which flashing and sheet metal work is to be performed. Do not proceed with the work until unsatisfactory conditions have been corrected.

2. PRODUCTS

2.1 Materials:

2.1.1 Stainless Steel Sheet: AISI Type 302/304 stainless sheet or strip, complying with ASTM A 167; No. 2D conventional dull finish, 0.018" thick (26 gage) except as otherwise indicated.

2.1.2 Copper Sheet: Cold-rolled sheet copper, complying with ASTM B 370, except soft temper where fully concealed and supported for proper performance.

- a. Weight: 16 oz. per sq. ft. (0.0216" thick), unless otherwise indicated. Base flashing shall be 20 oz. per sq. ft. (0.027" thick).
- b. Finish: Provide lead coating of 0.06 lbs. per sq. ft. on surfaces exposed to view; comply with ASTM B 101.

2.1.3 Miscellaneous Materials:

- a. For metal work, provide the type solder and fasteners recommended by the producer of the metal sheets, for fabrication and installation.
- b. Paper Slip Sheet: 6-lb. rosin-sized building paper.

2.2 Fabricated Products:

2.2.1 Fabricated Metal Flashing and Rain Drainage:

- a. Shop fabricate metal flashing, gutters, downspouts, and similar items to comply with profiles and sizes shown and, except as otherwise indicated, to comply with standard industry details as shown by SMACNA in the "Architectural Sheet Metal Manual". Except as otherwise indicated, provide soldered flat-lock seams, and fold back metal to form a hem on the concealed side of exposed edges. Comply with metal producers' recommendations for tinning, soldering, and cleaning flux from metal. Except as otherwise indicated, fabricate work from lead-coated copper sheet.
- b. Provide stock cast iron or steel brackets and hoods for rain drainage work, of types as indicated.

2.2.2 Fabricated Metal Flue Liners: Shop fabricate metal flue liners, fittings and supports to profiles and sizes as indicated. Provide lock seam pipe. Except as otherwise indicated, fabricate work from stainless steel.

3. EXECUTION

3.1 Removal and Salvage: Remove and dispose of all existing gutters and downspouts. Remove and salvage all existing hooks and brackets for gutters and downspouts.

3.2 General Installation Requirements:

3.2.1 Comply with manufacturer's instructions and recommendations for handling and installation of flashing and sheet metal work except as otherwise indicated.

3.2.2 Performance: Coordinate the work with other work for the correct sequencing of items which make up the entire system of roofing and rain drainage. It is required that the above flashing and sheet metal work be permanently watertight, and not deteriorate in excess of manufacturer's published limitations. Coordinate the flue liner work for correct sequencing with unit masonry and other related work. It is required that sheet metal flue liners be permanently smoketight, and not deteriorate in excess of manufacturer's published limitations.

3.3 Installation of Metal Flashing and Rain Drainage Work:

3.3.1 Comply with details and profiles as shown and, except as otherwise indicated, comply with SMACNA "Architectural Sheet Metal Manual" recommendations for installation of the work.

3.3.2 For non-moving seams provide soldered flat-lock seams, except as otherwise indicated. Comply with metal producers' recommendations for tinning, soldering and cleaning the joints.

3.3.3 Provide for thermal expansion of all exposed sheet metal work exceeding 15'-0" running length, except as otherwise indicated.

- a. Valleys: 10'-0" maximum spacing.
- b. Gutters: 40'-0" maximum spacing, and located at high points in drainage system wherever possible.
- c. Flashing: 10'-0" maximum spacing, and located 2'-0" from corners and intersections.

3.3.4 Provide paper slip sheet under all valley flashing and other continuous flashing.

3.3.5 Conceal fasteners and expansion provisions wherever possible. Fold

back edges on concealed side of exposed edges, to form a hem.

3.3.6 Separate work from dissimilar metals.

3.3.7 Fabricate, support and anchor rain drainage in a manner which will withstand thermal expansion stresses and full loading by water or ice, without damage, deterioration or leakage.

3.4 Installation of Metal Flue Liners:

3.4.1 Comply with details shown.

3.4.2 Provide for thermal expansion.

3.4.3 Provide adequate support for all sections.

3.4.4 Fasten joints securely.

4. MEASUREMENT AND PAYMENT: Payment will be made on a lump sum basis for all gutters and downspouts and related work, complete. Payment for the item will include the following:

4.1 Removal of existing gutters and downspouts.

4.2 Removal and salvage of existing hooks and brackets for gutters and downspouts.

4.3 New gutters and downspouts, including stock hooks and brackets.

4.4 Installation of custom-fabricated hooks and brackets and reinstallation of existing hooks and brackets.

5. QUALITY CONTROL

5.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

5.1.1 Examination of substrate.

5.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 7 - THERMAL AND MOISTURE CONTROL
SECTION 7F
SEALANTS

1. GENERAL

1.1 Description of Work: The required applications of sealants include, but are not necessarily limited to, joints between wood siding and trim.

1.2 Applicable Publications: The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by references thereto:

1.2.1 American Society for Testing and Materials (ASTM) Publications:

a. G 834-76 Latex Sealing Compounds, Spec. for.

1.3 Quality Assurance: Sealants shall be installed only by skilled tradesmen.

1.4 Submittals: Submit copies of manufacturer's specifications, recommendations and installation instructions for each type of sealant and associated miscellaneous material to the Contracting Officer for approval. Include manufacturer's published data, or letter of certification, or certified test laboratory report indicating that each material complies with the specified requirements and is intended generally for the applications shown. (Submit within 42 days of Notice to Proceed.)

1.5 Job Conditions:

1.5.1 Condition of Other Work: Examine the joint surfaces, backing, and anchorage of units forming sealant rabbet, and the conditions under which the sealant work is to be performed. Do not proceed with the sealant work until unsatisfactory conditions have been corrected.

1.5.2 Weather Conditions: Do not proceed with installation of sealants under adverse weather conditions, or when temperatures are below or above manufacturer's recommended limitations for installation. Proceed with the work only when forecasted weather conditions are favorable for proper cure and development of high early bond strength.

2. PRODUCTS

2.1 Materials, General:

2.1.1 Colors: Provide color selected by Contracting Officer from manufacturer's standard colors to match finish paint color as closely as possible.

2.1.2 Compatibility: Before purchase of specified sealant, investigate its compatibility with the joint surfaces, joint fillers and other materials

in the joint system, including the finish paint system to be applied. Provide only materials (manufacturer's recommended variation of the specified materials) which are known to be fully compatible with the actual installation condition, as shown by manufacturer's published data or certification.

2.2 Acrylic-Latex Sealant: Latex-rubber-modified, acrylic-emulsion-polymer sealant compound; permanently flexible, non-staining and non-bleeding; recommended by manufacturer for protected exterior exposure: ASTM C 834.

2.2.1 Products offered by manufacturers to comply with the requirements include the following:

- a. Latex Calk. Comp.; DeWitt Products Co.
- b. Acrylic Latex; Gibson-Homans Co.
- c. Easaply ALS; W. R. Meadows, Inc.
- d. AC-20 Acrylic Latex; Pecora Corp.
- e. Igas Calking-L; Sika Chemical Corp.
- f. Sonolac; Sonneborn/Contech, Inc.
- g. Acrylicalk; Std. Dry Wall Products, Inc.
- h. Latex Acrylic; Teledyne Coast Pro-Seal.
- i. Chem-Calk 600; Woodmont Products, Inc.

2.3 Miscellaneous Materials:

2.3.1 Joint Cleaner: Provide the type of joint cleaning compound recommended by the sealant manufacturer, for the joint surfaces to be cleaned.

2.3.2 Joint Primer/Sealer: Provide the type of joint primer/sealer recommended by the sealant manufacturer, for the joint surfaces to be primed or sealed.

3. EXECUTION

3.1 Joint Surface Preparation: Clean joint surfaces immediately before installation of sealant. Remove dirt, insecure coatings, moisture and other substances which would interfere with bond of sealant.

3.2 Installation:

3.2.1 Comply with sealant manufacturer's printed instructions and recommendations.

3.2.2 Prime or seal the joint surfaces wherever shown or recommended by the sealant manufacturer. Do not allow primer/sealer to spill or migrate onto adjoining surfaces.

3.2.3 Employ only proven installation techniques, which will ensure that sealants will be deposited in uniform, continuous ribbons without gaps or air pockets, with complete "wetting" of the joint bond surfaces equally on opposite sides. Except as otherwise indicated, fill sealant rabbet to a slightly concave surface, slightly below adjoining surfaces. Where horizontal joints are between a horizontal surface and a vertical surface, fill joint to form a slight cove, so that joint will not trap moisture and dirt.

3.2.4 Install sealants to depths as recommended by the sealant manufacturer, in the range of 75% to 125% of joint width. Remove excess compounds promptly as the work progresses.

4. QUALITY CONTROL

4.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

4.1.1 Application of sealants at all required locations.

4.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 8 - DOORS, WINDOWS, GLASS
SECTION 8A
GLASS AND GLAZING

1. GENERAL

1.1 Description of Work: The extent of glass and glazing work is indicated on the drawings. The required applications of glass and glazing include exterior single-hung windows and a special viewing panel.

1.2 Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:

1.2.1 New, and repaired existing, wood windows (Division 6).

1.2.2 Pointing (Division 9).

1.3 Applicable Publications: The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by references thereto:

1.3.1 Flat Glass Marketing Association (FGMA) "Glazing Manual".

1.3.2 American Society for Testing and Materials (ASTM) Publications:

a. D 1667-76 Flexible Cellular Materials - Vinyl Chloride Polymers and Copolymers (Closed-cell Sponge), Spec. for.

1.3.3 American National Standards Institute (ANSI) Publications:

a. ANSI Z97.1-1975 Safety Glazing Materials in Buildings, Performance Specifications and Methods of Test for.

1.4 Quality Assurance: Comply with the following:

1.4.1 Safety Glass: ANSI Z97.1, with label on each piece.

1.4.2 Manufacturer of Basic Glass: One of the following:

- a. ASG Industries, Inc.
- b. C-E Glass Div.
- c. Ford Glass Div.
- d. Libbey-Owens-Ford Co.
- e. PPG Industries, Inc.

1.5 Submittals: Submit the following items to the Contracting Officer for approval. (Submit within 28 days of Notice to Proceed):

DIVISION 8 - DOORS, WINDOWS, GLASS
SECTION 8A
GLASS AND GLAZING

1. GENERAL

1.1 Description of Work: The extent of glass and glazing work is indicated on the drawings. The required applications of glass and glazing include exterior single-hung windows and a special viewing panel.

1.2 Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:

1.2.1 New, and repaired existing, wood windows (Division 6).

1.2.2 Pointing (Division 9).

1.3 Applicable Publications: The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by references thereto:

1.3.1 Flat Glass Marketing Association (FGMA) "Glazing Manual".

1.3.2 American Society for Testing and Materials (ASTM) Publications:

a. D 1667-76 Flexible Cellular Materials - Vinyl Chloride Polymers and Copolymers (Closed-cell Sponge), Spec. for.

1.3.3 American National Standards Institute (ANSI) Publications:

a. ANSI Z97.1-1975 Safety Glazing Material Used in Buildings, Performance Specifications and Methods of Test for.

1.4 Quality Assurance: Comply with the following:

1.4.1 Safety Glass: ANSI Z97.1, with label on each piece.

1.4.2 Manufacturer of Basic Glass: One of the following:

a. ASG Industries, Inc.

b. C-E Glass Div.

c. Ford Glass Div.

d. Libbey-Owens-Ford Co.

e. PPG Industries, Inc.

1.5 Submittals: Submit the following items to the Contracting Officer for approval. (Submit within 28 days of Notice to Proceed):

1.5.1 Manufacturer's Data, Glass: Submit copies of manufacturer's specifications and installation instructions for each type of glass required. Include test data substantiating that glass complies with specified requirements.

1.5.2 Manufacturer's Data, Glazing Materials: Submit copies of manufacturer's specifications, and installation instructions for each type of glazing sealant and compound, gasket and associated miscellaneous material required. Include manufacturer's published data, or letter of certification, or certified test laboratory report indicating that each material complies with the specified requirements and is intended generally for the applications shown.

1.5.3 Samples, Glass: Submit 12" square samples of each type of glass required. Contracting Officer's review of samples will be for color, texture and pattern only. Compliance with other requirements is the exclusive responsibility of the Contractor.

1.5.4 Samples, Glazing Materials: Submit 12" long samples for each type of glazing sealant or gasket exposed to view.

1.6 Job Conditions: Examine the framing and glazing channel surfaces, backing, removable stop design, and the conditions under which the glazing is to be performed. Do not proceed with the glazing until unsatisfactory conditions have been corrected.

2. PRODUCTS

2.1 Glass: The following glass types shall be used:

2.1.1 Clear Sheet Glass: Clear sheet glass, FS D-G-451, Type II, Class I, Quality q6 ("B" quality); single strength, except as otherwise indicated.

2.1.2 Salvaged glass shall be reinstalled.

2.1.3 Laminated Safety Glass: Two sheets of double-strength "B" quality, clear sheet glass (FS DD-G0451, Type II, Class I, Quality q6) permanently laminated together with a 0.015" thick sheet of clear plasticized polyvinyl butyral, which has been produced specifically for laminating glass.

2.2 Glazing Sealants/Compounds:

2.2.1 General: Provide exposed glazing materials, selected by Contracting Officer from manufacturer's standard colors. Provide hardness of materials as recommended by the manufacturer for the required application and condition of installation in each case. Provide only compounds which are known (proven) to be fully compatible with surfaces contacted.

2.2.2 Vinyl from Glazing Tape: Closed cell, flexible, self-adhesive, non-extruding, polyvinyl chloride foam tape, recommended by manufacturer for exterior, exposed, watertight installation of glass, with only nominal pressure in the glazing channel; (ASTM D 1667).

2.2.3 Oil-Based Face Glazing Compound: FS TT-G-410, type and consistency recommended by manufacturer for application shown.

2.3 Miscellaneous Glazing Materials:

2.3.1 Setting Blocks: Neoprene, 70-90 durometer hardness, with proven compatibility with sealants used.

2.3.2 Spacers: Neoprene, 40-50 durometer hardness, with proven compatibility with sealants used.

2.3.3 Cleaners, Primers and Sealers: Type recommended by sealant or gasket manufacturer.

3. EXECUTION

3.1 Standards and Performance:

3.1.1 Watertight installation of each piece of glass is required. Each installation must withstand normal temperature changes, wind loading, impact loading (for operating sash and doors) without failure of any kind including loss or breakage of glass, failure of sealants or gaskets to remain watertight, deterioration of glazing materials and other defects in the work.

3.1.2 Protect glass from edge damage at all times during handling, installation and operation of the building.

3.1.3 Glazing channel dimensions as shown are intended to provide for necessary minimum bite on the glass, minimum edge clearance and adequate sealant thicknesses, with reasonable tolerances. The Contractor is responsible for correct glass size for each opening, within the tolerances and necessary dimensions established.

3.1.4 Comply with combined recommendations of glass manufacturer and manufacturer of sealants and other materials used in glazing, except where more stringent requirements are shown or specified, and except where manufacturer's technical representatives direct otherwise.

3.1.5 Comply with FGMA "Glazing Manual" recommendations except as shown and specified otherwise, and except as specifically recommended otherwise by the manufacturers of the glass and glazing materials.

3.1.6 Inspect each piece of new glass immediately before installation, and eliminate any which have observable edge damage. Face imperfections are preferable.

3.1.7 Protect all existing removed glass from damage. Reused original glass shall be installed on cellar and first floor sash first, utilizing glass in existing sizes without cutting.

3.2 Preparation For Glazing:

3.2.1 Clean the glazing channel, or other framing members to receive glass,

immediately before glazing. Remove coatings which are not firmly bonded to the substrate.

3.2.2 Apply primer or sealer to joint surfaces wherever recommended by sealant manufacturer.

3.3 Glazing:

3.3.1 For Special Viewing Panel, install setting blocks of proper size at quarter points of sill rabbet. Set blocks in thin course of the heel-bead compound, if required. Provide spacers inside and out, and of proper size and spacing, with 1/8" minimum bite of spacers on glass, and thickness slightly less than final compressed thickness of tape.

3.3.2 Tool exposed surfaces of glazing compounds to provide a substantial "wash" away from the glass. Install pressurized tapes to protrude slightly out of the channel, so as to eliminate dirt and moisture pockets.

3.3.3 Clean and trim excess glazing materials from the glass and stops or frames promptly after installation, and eliminate stains and discolorations.

3.4 Cure, Protection and Cleaning:

3.4.1 Cure glazing sealants and compounds in compliance with manufacturer's instructions and recommendations, to obtain high early bond strength, internal cohesive strength and surface durability.

3.4.2 Protect glass from breakage immediately upon installation. Do not apply markers of any type to surfaces of glass. It is imperative to adequately protect historic glass from breakage. More extraordinary methods may have to be used.

3.4.3 Remove and replace glass which is broken, chipped, cracked, abraded or damaged in other ways during the construction period, including natural causes, accidents and vandalism.

3.4.4 Maintain glass in a reasonably clean condition during construction, so that it will not be damaged by corrosive action and will not contribute (by wash-off) to the deterioration of glazing materials and other work.

4. QUALITY CONTROL

4.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

4.1.1 Acceptability of substrate.

4.1.2 Protection of Historic Glass.

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4.1.3 Record of installation of historic glass.

4.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 8 - DOORS, WINDOWS AND GLASS
SECTION 8B
HOLLOW METAL WORK

1. GENERAL

1.1 Description of Work: The extent of hollow metal work is shown on the drawings and schedules. This section includes custom hollow metal doors and custom pressed steel frames.

1.2 Applicable Publications: The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by references thereto:

1.2.1 American Society for Testing and Materials (ASTM) Publications:

- a. A 153-73 Zinc Coating (Hot-Dip) on Iron and Steel Hardware, Spec. for.
- b. A 366-72 Steel, Carbon, Cold-Rolled Sheet, Commercial Quality, Spec. for.
- c. A 525-76 Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, General Requirements, Spec. for.
- d. A 526-71 Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Commercial Quality, Spec. for.
- e. A 568-74 Steel, Carbon and High-Strength Low-Alloy Hot-Rolled Sheet, Hot-Rolled Strip, and Cold-Rolled Sheet, General Requirements, Spec. for.
- f. A 569-72 Steel, Carbon (0.15 Max. Percent), Hot-Rolled Sheet and Strip, Commercial Quality, Spec. for.

1.2.2 Steel Structures Painting Council (SSPG) Publications:

- a. SSPC-PT 2-64 Cold Phosphate Surface Treatment.
- b. SSPC-PT 3-64 Basic Zinc Chromate-Vinyl Butyral Washcoat.
- c. SSPC-PT 4-64 Hot Phosphate Surface Treatment.

1.2.3 American National Standards Institute (ANSI) Publications:

- a. ANSI A115-1971 Specifications for Door and Frame Preparation for Hardware.

1.3 Quality Assurance: Provide custom hollow metal work as manufactured by one of the following:

1.3.1 Allied Steel Products.

1.3.2 American Welding and Mfg. Co.

1.3.3 Ceco Corp.

1.3.4 Pioneer Industries.

1.3.5 Williamsburgh Steel Products Co.

1.4 Submittals: Submit shop drawings for the fabrication and installation of hollow metal work to the Contracting Officer for approval. Include details of each frame type, elevations of door types, conditions at openings, details of construction, location and installation requirements of finish hardware and reinforcements, insulation, and details of joints and connections. (Submit within 28 days of Notice to Proceed.)

1.5 Delivery, Storage and Handling:

1.5.1 Deliver hollow metal work cartoned or crated to provide protection during transit and job storage.

1.5.2 Inspect hollow metal work upon delivery for damage. Minor damages may be repaired provided the finish items are equal in all respects to new work and acceptable to the Contracting Officer; otherwise, remove and replace damaged items as directed.

1.5.3 Store doors and frames under cover, in a manner that will prevent rust and damage. If the cardboard wrapper on the door becomes wet, remove the carton immediately.

1.6 Job Conditions: Examine the substrate and conditions under which hollow metal work is to be installed. Do not proceed with the work until unsatisfactory conditions have been corrected.

2. PRODUCTS

2.1 Materials:

2.1.1 Hot-Rolled Steel Sheets and Strips: Commercial quality carbon steel, pickled and oiled, complying with ASTM A 569 and ASTM A 568.

2.1.2 Cold-Rolled Steel Sheets: Commercial quality carbon steel, complying with ASTM A 366 and ASTM A 568.

2.1.3 Galvanized Steel Sheets: Zinc-coated carbon steel sheets of commercial quality, complying with ASTM A 526, with ASTM A 525, G90 zinc coating, mill phosphatized.

2.1.4 Supports and Anchors: Fabricate of not less than 16 gage steel. Galvanize after fabrication units to be built into walls, complying with ASTM A 153, Class B.

2.1.5 Inserts, Bolts and Fasteners: Manufacturer's standard units, except hot-dip galvanize items to be built into walls, complying with ASTM A 153, Class C or D as applicable.

2.1.6 Shop-Applied Paint: For steel surfaces, use rust-inhibitive enamel or paint, either air-drying or baking, suitable as a base for specified finish paints. Paint galvanized surfaces with zinc dust-zinc oxide primer.

2.2 Fabrication, General: Fabricate hollow metal units to be rigid, neat in appearance and free from defects, warp or buckle. Accurately form metal to required sizes and profiles. Fit and assemble units in the manufacturer's plant. Weld exposed joints continuously, grind, dress, and make smooth, flush and invisible. Metallic filler to conceal manufacturing defects is not acceptable.

2.2.1 Exposed Fasteners: Unless otherwise indicated, provide countersunk flat Phillips or Jackson heads for exposed screws and bolts.

2.2.2 Finish Hardware Preparation: Prepare hollow metal units to receive mortised and concealed finish hardware, including cutouts, reinforcing, drilling and tapping in accordance with final Finish Hardware Schedule and templates provided by hardware supplier. Comply with applicable requirements of ANSI A 115 "Specifications for Door And Frame Preparation For Hardware".

- a. Reinforce hollow metal units to receive surface-applied hardware. Drilling and tapping for surface-applied finish hardware may be done at project site.
- b. Locate finish hardware as shown on final shop drawings, or if not shown, in accordance with "Recommended Locations for Builder's Hardware", published by National Builders' Hardware Association.

2.2.3 Shop Painting:

- a. Clean, treat and paint exposed surfaces of fabricated hollow metal units, including galvanized surfaces.
- b. Clean steel surfaces of mill scale, rust, oil, grease, dirt and other foreign materials before the application of the shop coat of paint.
- c. Apply pretreatment to cleaned metal surfaces, using cold phosphate solution (SSPC-PT2), hot phosphate solution (SSPC-PT 4) or basic zinc chromate-vinyl butyral solution (SSPC-PT 3).
- d. Apply shop coat of prime paint within time limits recommended by pretreatment manufacturer. Apply a smooth coat of even consistency to provide a uniform dry film thickness of not less than 2.0 mils.

2.3 Doors:

2.3.1 Provide flush design doors, 1-3/4" thick, seamless hollow construction, unless otherwise indicated. Bevel both vertical edges 1/8" in 2".

2.3.2 Provide thermal insulation filler of mineral rock wool, rigid polystyrene, fiberglass, foamed-in-place urethane or other approved noncombustible material solidly packed full door height to fill the voids between inner core reinforcing members.

2.3.3 Fabricate doors of 2 outer galvanized, stretcher-leveled steel sheets not less than 16 gage. Construct doors with smooth, flush surfaces without visible joints or seams on exposed faces or edges.

2.3.4 Reinforce inside of doors with vertical galvanized sheet steel channel-shaped sections or interlocking z-shaped sections not less than 22 gage. Space vertical reinforcing 6" c.c and extend full door heights. Spot-weld at not more than 5" o.c to both face sheets.

- a. Rigid insulation, permanently bonded to face sheets, may be provided in lieu of above.

2.3.5 Reinforce tops and bottoms of doors with 16 gage horizontal steel channels welded continuously to the outer sheets. Close top and bottom edges to provide weather seal, as integral part of door construction or by addition of inverted steel channels.

2.3.6 Finish Hardware Reinforcement: Reinforce doors for required finish hardware. Reinforce exterior doors for surface-applied closers.

2.4 Frames:

2.4.1 Provide hollow metal frames for doors, of size and profile as indicated.

2.4.2 Fabricate frames of full-welded unit construction, with corners mitered, reinforced, continuously welded full depth and width of frame, unless otherwise indicated. Knock-down type frames are not acceptable.

2.4.3 Form frames of galvanized steel sheets, not less than 14 gage for openings up to and including 4'-0" wide. For openings over 4'-0" wide, increase thickness by at least two standard gages.

2.4.4 Finish Hardware Reinforcement: Reinforce frames for required finish hardware. Reinforce exterior frames for surface-applied closers.

2.4.5 Jamb Anchors: Furnish jamb anchors as required to secure frames to adjacent construction, formed of not less than 18 gage galvanized steel.

- a. Masonry Construction: Adjustable, flat or corrugated or perforated, t-shaped to suit framesize with leg not less than 2" wide

by 10" long. Furnish at least 3 anchors per jamb.

- b. In-Place Concrete or Masonry: Anchor frame jambs with minimum 3/8" concealed bolts into expansion shields or inserts at 6" from top and bottom and 26" o.c., unless otherwise shown. Reinforce frames at anchor locations.

2.4.6 Floor Anchors: Provide clip type floor anchors for each jamb, formed of not less than 14 gage galvanized steel sheet, with 2 holes to receive fasteners, welded to bottom of jambs.

2.4.7 Head Reinforcing: For frames over 4'-0" wide in masonry wall openings provide continuous steel channel or angle stiffener, not less than 12 gage for full width of opening, welded to back of frame at head.

2.4.8 Spreader Bars: Provide removable spreader bar across bottom of frames, tack welded to jambs and mullions.

2.4.9 Plaster Guards: Provide 26 gage steel plaster guards or dust cover boxes, welded to frame, at back of finish hardware cutouts where mortar or other materials might obstruct hardware installation.

2.5 Stops: Form fixed stops integral with frame.

3. EXECUTION

3.1 Installation: Install hollow metal units and accessories in accordance with the final shop drawings and as herein specified.

3.1.1 Setting Masonry Anchorage Devices: Provide masonry anchorage devices where required for securing hollow metal frames to in-place masonry construction. Set anchorage devices opposite each anchor location, in accordance with details on final shop drawings and anchorage device manufacturer's instructions. Leave drilled holes rough, not reamed, and free from dust and debris.

3.1.2 Placing Frames: Set frames accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete and frames are secured, remove temporary braces and spreaders leaving surfaces smooth and undamaged.

- a. In masonry construction, building-in of anchors and grouting of frames is included in Division 4 of these specifications.
- b. At in-place masonry construction, set frames and secure in place with machine screws and masonry anchorage devices.

3.1.3 Door Installation:

- a. Fit hollow metal doors accurately in their respective frames

with the following clearances, except as otherwise indicated or required, to accommodate finish hardware:

- (1) Jambs and Head: $3/32$ ".
- (2) Meeting Edges, Pairs of Doors: $1/8$ ".
- (3) Bottom: $3/8$ ", where no threshold.
- (4) Bottom: at Threshold: $1/8$ ".

b. Finish hardware installation is specified in Division 8 of these specifications.

3.2 Adjust and Clean:

3.2.1 Final Adjustments: Check and readjust operating finish hardware items in hollow metal work just prior to final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including doors or frames which are warped, bowed or otherwise unacceptable.

3.2.2 Prime Coat Touch-Up: Immediately after erection, sand smooth rusted or damage areas of prime coat and apply touch-up of compatible air-drying primer.

4. QUALITY CONTROL

4.1 The contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section.

4.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 8 - DOORS, WINDOWS AND GLASS
SECTION 8C
BUILDERS HARDWARE

1. GENERAL

1.1 Description of Work:

1.1.1 The extent of builders hardware is shown on the drawings and in schedules. Builders hardware is hereby defined to include all items known commercially as builders hardware, as required for swing doors including reproduction historic hardware. The required types of builders hardware include but are not necessarily limited to the following:

- a. Butts and hinges.
- b. Lock and latch sets.
- c. Bolts.
- d. Hooks and eyes.
- e. Hasps and padlocks.
- f. Stripping and seals.
- g. Thresholds.

1.1.2 The work of this section also includes removal, repair and reinstallation of existing hardware, as indicated.

1.2 Applicable Publications: The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by references thereto:

1.2.1 National Builders Hardware Association (NBHA) Publications:

- a. Recommended Locations for Builders' Hardware.

1.3 Quality Assurance:

1.3.1 Acceptable Manufacturers: The last article of this section indicates acceptable manufacturers for the primary items of builders hardware. An asterisk (*) is shown in the listing of acceptable manufacturers to indicate which manufacturers' product numbers have been used in schedules and elsewhere to establish minimum requirements.

1.3.2 Departures From Scheduled Designations: Except as otherwise indicated, the use of one manufacturer's numeric designation system in schedules does not imply that another manufacturer's products will not be acceptable, unless they are not acceptable in design, or not equal in size,

weight, finish, function, or other quality of significance. However, do not make substitutions after Contracting Officer's acceptance of completed hardware schedule.

1.4 Submittals: The following items shall be submitted to the Contracting Officer for approval:

1.4.1 Manufacturer's Data: Submit copies of manufacturer's data for each item of hardware. Include whatever information may be necessary to show compliance with requirements, and include instructions for installation and for maintenance of operating parts and exposed finishes. Whenever needed, furnish templates to fabricators of other work which is to receive finish hardware. (Submit within 21 days of Notice to Proceed.)

1.4.2 Hardware Schedule: Submit copies of the hardware schedule in the manner and format specified. Include a separate key schedule, showing clearly how the Contracting Officer's final instructions on keying of locks have been fulfilled. Hardware schedules are intended for coordination of the work. Review and acceptance by the Contracting Officer does not relieve the Contractor of his exclusive responsibility to fulfill the requirements as shown and specified. Based on the builders hardware requirements indicated, organize the hardware schedule into "hardware sets", indicating complete designation of every item required for each door or opening. Furnish initial draft of schedule within 21 days of Notice to Proceed. Furnish final draft of schedule after samples, manufacturer's data sheets, coordination with shop drawings for other work and similar information has been completed and accepted.

1.4.3 Submit detailed description of proposed method for cleaning and removing rust from existing hardware to be reused. (Submit within 28 days of Notice to Proceed.)

1.4.4 Samples:

- a. Prior to submittal of the final hardware schedule and prior to delivery of hardware, submit one sample of each type of reproduction historic hardware unit.
- b. Submit one representative samples of each type of existing hardware unit, after rehabilitation.
- c. Units which are acceptable and remain undamaged through submittal, review and field comparison procedures may, after final check of operation, be used in the work, within limitations of keying coordination requirements.

1.5 Product Handling:

1.5.1 Upon removal, bag and tag each item of existing hardware which is to be reused. Include all strikes, keepers, fasteners and other components. Indicate door or opening number, mounting height and other pertinent

information relative to original location.

1.5.2 Provide secure lock-up for all new and existing hardware not yet installed.

1.6 Job Conditions:

1.6.1 Coordination: Coordinate hardware with other work. Tag each item or package separately, with identification related to the final hardware schedule, and include basic installation instructions in the package. Furnish hardware items of proper design for use on doors and frames of the thicknesses, profile, swing, security and similar requirements indicated, as necessary for proper installation and function.

1.6.2 Templates: Furnish hardware templates to fabricator of doors and frames to be factory-prepared for the installation of hardware.

2. PRODUCTS

2.1 Hardware Schedule: The requirements for material, type, grade, size and function of builders hardware items are indicated by particular manufacturer's product numbers, as specified or otherwise noted (except as otherwise indicated).

2.2 Materials and Fabrication:

2.2.1 General:

- a. Hand of door: The drawings show the swing or hand of each door leaf. Verify the swing or hand of each existing door leaf in the field. Furnish each item of hardware for proper installation and operation of the door swing.
- b. Fasteners: Provide fasteners for installation of all hardware units.

- (1) Standard Modern Hardware: Manufacture hardware to conform to published templates, generally prepared for machine screw installation. Do not provide hardware which has been prepared for self-tapping sheet metal screws, except as specifically indicated. Provide Phillips flat-head screws except as otherwise indicated.

- (2) Reproduction Historic Hardware: Provide hardware manufacturer's historically accurate fasteners for reproduction historic hardware.

2.2.2 Hinge Pins: Provide non-removable pins on exterior hollow metal doors.

2.2.3 Lock Cylinders and Keying:

- a. Standard System: Except as otherwise indicated, provide new masterkey system for project.
- b. Metals: Construct lock cylinder parts from brass/bronze, stainless steel or nickel silver.
- c. Provide individual change key for each lock which is not designated to be keyed alike with a group of related locks.
- d. Key Quantity: Furnish 3 keys for each lock and 5 keys for master system.

2.2.4 Locks, Latches and Bolts: Provide 3/4" minimum throw of latch and deadlock bolts used on pairs of doors.

2.2.5 Stripping:

- a. Continuity of Stripping: Except as otherwise indicated, it is required that the stripping at each opening be continuous and without unnecessary interruptions at door corners and hardware.
- b. Replaceable Seal Strips: It is required that the resilient seal strip of every unit be easily replaceable and readily available from stocks maintained by the manufacturer.
- c. Provide bumper type weatherstripping at jambs, head, and meeting stiles including a resilient insert and metal retainer strip, surface-applied, of the following metal, finish and resilient bumper material:
 - (1) Extruded aluminum with natural anodized finish: 0.062" minimum thickness of main walls and flanges.
 - (2) Closed-cell sponge neoprene insert, 3/8" x 3/4" (3/8" x 1-1/4" at meeting stiles).

2.2.6 Provide metal astragal bar, not less than 1/8" to 1-3/4", for exposed flat-head screw mounting on one leaf; cold-rolled steel, prime paint finish.

2.2.7 Thresholds:

- a. Metal: Extruded aluminum, smooth commercial finish.
- b. Surface Pattern: Grooved tread, manufacturer's standard.
- c. Width: As indicated, but not less than 4" if not otherwise indicated.
- d. Minimum Thicknesses: 0.125" for direct tread surfaces, 0.10" for secondary tread surfaces, and 0.0625" for unexposed flanges

and legs.

- e. Construction: Single-piece or multiple-piece construction at Contractor's option, complying with manufacturer's recommendations.
- f. Profile: Provide manufacturer's standard unit which conforms with the minimum size and profile requirements as shown or otherwise indicated.
- g. Seal: Provide units with integral, replaceable, resilient weatherstripping of closed cell sponge neoprene.

3. EXECUTION

3.1 Rehabilitation of Existing Hardware: Remove existing hardware as indicated. Where existing hardware is to be reused, clean, repair, lubricate and oil or repaint hardware as indicated.

3.1.1 Only approved methods that will not mar the surface of the hardware may be used to clean and remove rust. Do not use grinders or heavy sand-blasting.

3.1.2 Replace missing parts to match original. Provide keys as indicated. Repair to good operating condition and lubricate mechanism.

3.1.3 Rub ferrous surfaces with linseed oil. Prime and paint as indicated.

3.2 Installation:

3.2.1 Mount hardware units at heights recommended in "Recommended Locations for Builders' Hardware" by NBHA, except as otherwise specifically indicated. Mount reused existing hardware and reproduction historic hardware in original locations, except as otherwise specifically indicated.

3.2.2 Install each hardware item in compliance with the manufacturer's instructions and recommendations. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, install each item completely and then remove and store in a secure place during the finish application. After completion of the finishes, re-install each item. Do not install surface-mounted items until finishes have been completed on the substrate.

3.2.3 Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.

3.2.4 Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

3.2.5 Cut and fit threshold and floor covers to profile of door frames, with mitered corners and hair-line joints. Join units with concealed welds or concealed mechanical joints. Cut smooth openings for spindles, bolts and similar items, if any. Screw thresholds to substrate with No. 10 or larger screws, of the proper type for permanent anchorage and of bronze or stainless steel which will not corrode in contact with the threshold metal. Set each edge of threshold in a seal strip of butyl rubber sealant or polyisobutylene mastic sealant. Remove excess sealant.

3.3 Adjust and Clean: Adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Lubricate moving parts with type lubrication recommended by manufacturer (graphite-type if no other recommended). Replace units which cannot be adjusted and lubricated to operate freely and smoothly as intended for the application made.

4. QUALITY CONTROL

4.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

4.1.1 Careful removal, tagging and safekeeping of existing hardware to be reused.

4.1.2 Installation of reused existing hardware and historic reproduction hardware units in accordance with records and physical evidence of their original location.

4.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

5. BUILDERS HARDWARE DATA:

5.1 Acceptable Manufacturers:

5.1.1 Standard Modern Hardware:

- a. Butts and Hinges: Hager, Lawrence, Stanley*.
- b. Locks: Russwin*, Sargent, Yale
- c. Bolts: Baldwin*, Sargent, Stanley.
- d. Door Stripping: Chamberlin, Reese, Zero.

5.1.2 Reproduction Historic Hardware:

- a. Ball & Ball ("C Quality")*

Whitford-Exton, Pa.

- b. James Kieffer
Honey Brook, Pa.
- c. Arden Forge
301 Brinton's Bridge Road
Dilworthtown, Pa.
- d. Monroe Coldren
723 E. Virginia Ave.
West Chester, Pa.

5.2 Hardware Schedule:

Hardware Set 1 - Each set to have:

- 1 Pr. Butt Hinges, Stanley F 179, 3-1/2", USP.
- 1 Cyl. Deadlock, Russwin 1403 7/8 (TO 1/2C cyl. for 1-3/8" door), US28.
- Weatherstripping
- Threshold

Hardware Set 2 - Each set to have:

- 1 Hook & Eye, 4" overall hook length, plain steel finish.

Hardware Set 3 - Each set to have:

- 3 keys, for existing lock, hand forged.

Hardware Set 4 - Each set to have:

- 1 Lock, custom hand forged historic reproduction (See drawing 7/A-16).

Hardware Set 5 - Each set to have:

- 1 Pr. Butt Hinges, similar to B & B H1051-020, custom cast, 5 knuckle, 3-1/2" x 2-1/2".

Hardware Set 6 - Each set to have:

- 1 Hinge Hasp, tapered strap type, wrought steel; 4-1/2" strap length, 3-1/4" slotted length, 1-1/8" joint length, plain steel finish
- 1 Padlock, B & B V170-343.

Hardware Set 7 - Each set to have:

- 1 Padlock, B & B V170-343.

Hardware Set 8 - Each set to have:

- 2 Pr. Butt Hinges, Stanley FBB179, 3-1/2", USP.
- 1 Pr. Surface Bolts (T & B), Baldwin 0335, US2C.
- 1 Cyl. Lockset, Russwin "Stilemaker" Heavy Duty, Function 446, Knobs 3842 1/4, Roses 942 5/8, US28.

Whitford-Exton, Pa.

- b. James Kieffer
Honey Brook, Pa.
- c. Arden Forge
301 Brinton's Bridge Road
Dilworthtown, Pa.
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723 E. Virginia Ave.
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Hardware Set 1 - Each set to have:

- 1 Pr. Butt Hinges, Stanley F 179, 3-1/2", USP.
- 1 Cyl. Deadlock, Russwin 1403 7/8 (TO 1/2C cyl. for 1-3/8" door), US28.
- Weatherstripping
- Threshold

Hardware Set 2 - Each set to have:

- 1 Hook & Eye, 4" overall hook length, plain steel finish.

Hardware Set 3 - Each set to have:

- 3 keys, for existing lock, hand forged.

Hardware Set 4 - Each set to have:

- 1 Lock, custom hand forged historic reproduction (See drawing 7/A-16).

Hardware Set 5 - Each set to have:

- 1 Pr. Butt Hinges, similar to B & B H1051-020, custom cast, 5 knuckle, 3-1/2" x 2-1/2".

Hardware Set 6 - Each set to have:

- 1 Hinge Hasp, tapered strap type, wrought steel; 4-1/2" strap length, 3-1/4" slotted length, 1-1/8" joint length, plain steel finish
- 1 Padlock, B & B V170-343.

Hardware Set 7 - Each set to have:

- 1 Padlock, B & B V170-343.

Hardware Set 8 - Each set to have:

- 2 Pr. Butt Hinges, Stanley FBB179, 3-1/2", USP.
- 1 Pr. Surface Bolts (T & B), Baldwin 0335, US2C.
- 1 Cyl. Lockset, Russwin "Stilemaker" Heavy Duty, Function 446, Knobs 3842 1/4, Roses 942 5/8, US28.

GRUBER REST

Weatherstripping
Threshold

Hardware Set 9 - Each set to have:

- 1 Pr. Half Mortise Tapered Strap Hinges, custom cast historic reproduction to match existing.

Hardware Set 10 - Each set to have:

- 1 Butt Hinge, Similar to B & B H1051-020, custom cast, 5 knuckle, 3-1/2" x 3".

DIVISION 9 - FINISHES
SECTION 9A
PLASTER

1. GENERAL

1.1 Description of Work: The extent of the plaster work is shown on the drawings and in schedules. The work of this section includes but is not necessarily limited to the following:

1.1.1 Metal furring and lathing of Mechanical Room ceiling.

1.1.2 Portland cement plastering of Mechanical Room walls and ceiling.

1.2 Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:

1.2.1 Rigid foam insulation plaster base (Division 7).

1.3 Applicable Publications: The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by references thereto:

1.3.1 American Society for Testing and Materials (ASTM) Publications:

a. G 150-77 Portland Cement, Spec. for.

1.3.2 American National Standards Institute (ANSI) Publications:

a. ANSI A42.2-1971 Portland Cement and Portland Cement-Lime Plastering, Exterior (Stucco) and Interior, Specifications for.

b. ANSI A42.3-1971 Lathing and Furring for Portland Cement and Portland Cement-Lime Plastering, Exterior (Stucco) and Interior, Specifications for.

1.3.3 Metal Lath/Steel Framing Association Publications:

a. Specifications for Metal Lathing and Framing.

b. Technical Bulletin 101.

1.4 Quality Assurance: Comply with applicable requirements of ANSI A42.2 and A42.3, except where more detailed or more stringent requirements are indicated including those of the plaster manufacturer. Options therein are Contractor's option unless otherwise indicated.

1.5 Submittals: Submit copies of the manufacturer's product specifications and installation instructions for each material to the Contracting Officer for approval. Include other data as may be required to show compliance with these specifications. (Submit within 35 days of Notice to Proceed.)

1.6 Product Handling: Except for sand and water, deliver materials to the site in sealed containers or bags fully identified with manufacturer's name, brand, type, and grade. Store materials in a dry, well-ventilated space, under cover and off the ground.

1.7 Job Conditions:

1.7.1 Examine surfaces which are to receive plaster, grounds and other accessories which act as grounds or screeds. Do not proceed with the plaster work until unsatisfactory conditions have been corrected.

1.7.2 Temporary Heat and Ventilation: Comply with ANSI A42.2 as applicable to the work. Do not apply plaster when ambient temperature is less than 32 degrees F, and when less than 40 degrees F and falling.

1.7.3 Protect contiguous work from soiling, spattering, moisture deterioration and other harmful effects which might result from plastering.

2. PRODUCTS

2.1 Portland Cement Plaster Materials:

2.1.1 General: Provide either neat or ready-mixed (where available) materials, at Contractor's option, complying with ANSI A42.2.

2.1.2 Base-Coat Cement: Portland cement, ASTM C 150, Type I or IA.

2.1.3 Base-Coat Lime: Special finishing hydrated lime, Type S.

2.1.4 Base-Coat Aggregate: Sand.

2.1.5 Base-Coat Fiber: Hair or fiber; mix with plaster for scratch coat on metal lath or reinforcement.

2.1.6 Prepared Finish-Coat: Factory-prepared finish for portland cement plaster, type recommended by the manufacturer for the color and texture indicated. Texture: Sand-float finish.

2.2 Metal Furring and Lath: Comply with "Specifications for Metal Lathing and Furring" and "Technical Bulletin 101" by the Metal Lath/Steel Framing Assoc. for the selection of type, weight and finish of metal lath and furring. Materials shall be as specified for "high humidity" areas.

2.3 Plastering Accessories: Standard gage galvanized accessories as indicated or, if not otherwise indicated, as recommended by plaster manufacturer.

2.4 Fasteners: Galvanized steel, of type and length suitable for adequate penetration of the substrate.

2.5 Plaster Mixes: General: Except as otherwise indicated, comply

with ANSI A42.2 as applicable, except comply with manufacturer's instructions where more stringent than standards.

3. EXECUTION

3.1 Preparations for Plastering:

3.1.1 Clean plaster bases and substrates to be plastered, removing loose materials, coatings and other substances which might impair the work.

3.1.2 Install metal furring and lath for portland cement plaster ceiling. Comply with ANSI A42.3 and with manufacturer's recommendations.

3.1.3 Install diagonal strips of metal lath at corners of openings in plaster.

3.1.4 Install temporary grounds and screeds as required to control plaster thickness and comply with tolerances.

3.1.5 Install plastering accessories, anchored to substrates 8" o.c. along each flange. Miter corners and spline joints to form tight accurate joints without offsets.

3.2 Installation of Plaster:

3.2.1 General: Comply with ANSI A42.2; and with manufacturer's instructions which are more detailed or more stringent.

3.2.3 Mechanically mix plaster materials at the project site; do not hand mix except where small amounts are needed, using less than one bag of plaster material.

3.2.3 Sequence plaster installation properly with the installation and protection of other work, so that neither will be damaged by the installation of the other.

3.2.4 Plaster flush with metal frames and other built-in metal items or accessories which act as a plaster ground, unless otherwise shown. Where plaster is not terminated at metal by casing beads, cut base-coat free from metal before plaster sets and groove finish coat at the junctures with metal.

3.2.5 Apply thicknesses and number of coats of plaster as indicated; comply with ANSI standards if not otherwise indicated. Limit 2-coat plaster installation to applications recommended by manufacturer and permitted by ANSI standards.

3.2.6 Texture of Plaster Finish: Except as otherwise indicated, apply sand-float finish-coat.

3.2.7 Cure portland cement plaster by maintaining each coat in a moist

condition for 2 days following application; keep enclosed and fog-spray (after initial set) as required to prevent dry-out.

3.3 Cutting and Patching: Remove temporary protection of other work. Promptly remove plaster from door frames, windows, and other surfaces which are not to be plastered. Repair floors, walls and other surfaces which have been stained, marred or otherwise damaged during the plastering work. When plastering work is completed, remove unused materials, containers and equipment and clean floors of plaster debris.

4. MEASUREMENT AND PAYMENT: Payment for plaster work and other miscellaneous Mechanical Room work will be made on a lump sum basis. Payment for the item will include the following:

4.1 Insulation work.

4.2 Furring, lathing and plaster work.

4.3 Steel doors and frames.

5. QUALITY CONTROL:

5.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

5.1.1 Acceptability of substrate.

5.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 9 FINISHES
SECTION 9B
PAINTING

1. GENERAL

1.1 Description of Work: The extent of painting work is shown on the drawings and schedules, and as herein specified. The work of this section includes but is not necessarily limited to the preparation and painting of the following surfaces:

- a. Metal roofing and flashing.
- b. Metal gutters and downspouts, hooks and brackets.
- c. Snow guards and snow guard brackets.
- d. Exterior wood siding, doors, windows, frames and trim.
- e. Certain interior masonry surfaces (whitewash).
- f. Hollow metal doors and frames.
- g. Removal of metal stairs and landings.

1.1.2 Surface preparation, priming and coats of paint specified are in addition to shop-priming and surface treatment specified under other sections of the work.

1.1.3 "Paint" as used herein means all coating systems materials, including primers, emulsions, enamels and other applied materials whether used as prime, intermediate or finish coats.

1.2 Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:

1.2.1 Glazing and replacement of glazing compound (Division 8).

1.3 Submittals:

1.3.1 Manufacturer's Data: Submit copies of manufacturer's technical information to Contracting Officer for approval. Include paint label analysis and application instructions for each material proposed for use. (Submit within 35 days of Notice to Proceed.)

1.3.2 Samples: Submit samples to Contracting Officer for review of color and texture only. Compliance with all other requirements is the exclusive responsibility of the Contractor. Provide a listing of the material and application for each coat of each finish sample.

- a. On 12" x 12" hardboard, provide two samples of each color and material, with texture to simulate actual conditions. Resubmit each sample as requested until acceptable sheen, color, and

texture is achieved. (Submit within 49 days of Notice to Proceed.)

- b. On actual wall surfaces and other exterior and interior building components, duplicate painted finishes of the prepared samples. On at least 100 sq. ft. of surface as directed, provide full-coat finish samples until required sheen, color and texture is obtained.

1.4 Delivery and Storage:

1.4.1 Deliver all materials to the job site in original, new and unopened packages and containers bearing manufacturer's name and label information.

1.4.2 Store materials only at locations as designated by the Contracting Officer.

1.5 Job Conditions:

1.5.1 Apply water-base paints only when the temperature of surfaces to be painted and the surrounding air temperatures are between 50 degrees F. and 90 degrees F. unless otherwise permitted by the paint manufacturer's printed instructions.

1.5.2 Apply solvent-thinned paints only when the temperature of surfaces to be painted and the surrounding air temperatures are between 45 degrees F. and 95 degrees F. unless otherwise permitted by the paint manufacturer's printed instructions.

1.5.3 Do not apply paint in snow, rain, fog or mist; or when the relative humidity exceeds 85%; or to damp or wet surfaces; unless otherwise permitted by the paint manufacturer's printed instruction.

2. PRODUCTS

2.1 Colors and Finishes:

2.1.1 Paint colors are indicated, as follows by reference to the Munsell System of color notation. (Munsell Color, 2441 N. Calvert Street, Baltimore, Maryland 21218):

- a. Snowguards, cornice, trim and frames of windows and doors, corner boards and doors: Munsell 7.5Yr3/2
- b. Siding, sash, gutters and downspouts: Munsell 2.5Y8/6
- c. Flashing and metal roofing: Munsell 10YR4/4

2.1.2 Final acceptance of colors will be from samples applied on the job.

2.1.3 Color pigments: Pure, non-fading, applicable types to suit the

substrates and service indicated.

2.1.4 Paint Coordination: Provide finish coats which are compatible with prime paints used.

2.2 Material Quality:

2.2.1 Provide the best quality grade of the various types of coatings as regularly manufactured by acceptable paint materials manufacturers. Materials not displaying the manufacturer's identification as a standard, best-grade product will not be acceptable.

2.2.2 Specified materials are products of Finnaren & Haley, Inc. and the Koppers Co., Inc. Proprietary names used to designate materials are not intended to imply that products of the named manufacturers are required to the exclusion of equivalent products of other manufacturers.

2.2.3 Provide undercoat paint produced by the same manufacturer as the finish coats, except as otherwise indicated. Use only thinners approved by the paint manufacturer, and use only within recommended limits.

2.3 Exterior Paint Systems: Provide the following paint systems for the various substrates, as indicated.

2.3.1 Wood siding, doors, windows, frames and trim:
One coat F & H Trim & Shutter Primer.
Two coats F & H Trim & Shutter Finish.

2.3.2 Metal Roofing, Flashing, Gutters and Downspouts:
One coat Manufacturer's recommended primer.
Two coats F & H Trim & Shutter Finish.

2.3.3 Ferrous Metal Snow Guards and Snow Guard Brackets:
One coat F & H Rust Rid Metal Primer.
One coat F & H Rust Rid Metal Finish.

2.3.4 Ferrous Metal Hooks and Brackets for Gutters and Downspouts:
One coat Koppers Bituminous-Epoxy Primer
Two coats F & H Trim & Shutter Finish.

2.4 Interior Paint Systems: Provide the following paint systems for the various substrates, as indicated.

2.4.1 Ferrous Metal, including Hollow Metal Doors and Frames:
One coat F & H Rust Rid Metal Primer.
Two coats F & H Finest Finish Satin Enamel.

2.4.2 Aluminum and Galvanized Steel:
One coat F & H Galvanized Metal Primer.
One coat F & H Rust Rid Metal Finish.

2.4.3 Stone Walls, Parged:

Whitewash: Mix paste of eight pounds of hydrated lime in three quarts of water. Mix 1/2 pound of glue (finely granulated transparent animal glue with no additives) in one quart of water and add it to one gallon of lime paste to make whitewash for use.

3. EXECUTION

3.1 Inspection:

3.1.1 Examine the areas and conditions under which painting work is to be applied. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.1.2 Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to the formation of a durable paintfilm.

3.2 Surface Preparation:

3.2.1 General:

- a. Perform preparation and cleaning procedures in strict accordance with the paint manufacturer's instructions and as herein specified, for each particular substrate condition.
- b. Remove all hardware and similar items in place and not to be finish-painted, or provide surface-applied protection prior to surface preparation and painting operations. Remove, if necessary, for the complete painting of the items and adjacent surfaces. Following completion of painting of each space of area, reinstall the removed items by workmen skilled in the trades involved.
- c. Except for shop-primed surfaces, remove all existing paint from surfaces to be painted.
- d. Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease prior to mechanical cleaning. Program the cleaning and painting so that contaminants from the cleaning process will not fall onto wet, newly-painted surfaces.

3.2.2 Wood:

- a. Except for shop-primed surfaces, remove all existing paint down to the bare wood by using a good paint remover such as Wilson-Imperial Wonder Water Wash Paint Remover. Because of the danger of fire, the process of removal by burning is prohibited. In using a paint scraper to remove the paint loosened by the paint remover, care shall be taken not to damage the woodwork with the sharp points and surfaces of the paint scraper. In

removing the loosened paint from intricate moldings and curved surfaces use an appropriately shaped scraper with rounded edges, taking as much care as necessary to preserve the original appearance of the woodwork.

- b. Clean wood surfaces to be painted of all dirt, oil, or other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sandpaper smooth those finished surfaces exposed to view, and dust off. Scrape and clean small, dry, seasoned knots and apply a thin coat of white shellac or other recommended knot sealer, before application of the priming coat. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood-filler. Sandpaper smooth when dried.
- c. Prime new wood required to be job-painted immediately upon delivery to job. Prime edges, ends, faces, undersides, and backsides of such wood, except as otherwise indicated.

3.2.3 Ferrous Metals:

- a. Except for shop-primed surfaces, remove all existing paint down to the bare metal.
- b. Remove all rust by wire brushing, sanding or sandblasting, and the use of a liquid rust remover such as Metal Treat or Dunrite Rust Remover.
- c. Clean surfaces which are not shop-coated, of oil, grease, dirt, loose mill scale and other foreign substances by solvent or mechanical cleaning.

3.2.4 Aluminum: Clean surfaces of oil, grease, dirt and other foreign substances.

3.2.5 Touch-up shop-applied prime coats wherever damaged or bare, where required by other sections of these specifications. Clean and touch-up with the same type shop primer.

3.3 Materials Preparation:

3.3.1 Mix and prepare painting materials in accordance with manufacturer's directions.

3.3.2 Store materials not in actual use in tightly covered containers. Maintain containers used in storage, mixing and application of paint in a clean condition, free of foreign materials and residue.

3.3.3 Stir materials before application to produce a mixture of uniform density, and stir as required during the application of the materials. Do not stir surface film into the material. Remove the film and if necessary,

strain the material before using.

3.4 Application:

3.4.1 General:

- a. Apply paint in accordance with the manufacturer's directions. Use applicators and techniques best suited for the substrate and type of material being applied.
- b. Apply additional coats when undercoats, stains or other conditions show through the final coat of paint, until the paint film is of uniform finish, color and appearance. Give special attention to insure that all surfaces, including edges, corners, crevices and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
- c. Finish exterior doors on tops, bottoms and side edges the same as the exterior faces, unless otherwise indicated. Do not finish the interior faces, unless otherwise indicated.

3.4.2 Scheduling Painting:

- a. Apply the first-coat material to surfaces that have been cleaned or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
- b. Allow sufficient time between successive coatings to permit proper drying. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

3.4.3 Minimum Coating Thickness: Apply each material at not less than the manufacturer's recommended spreading rate, to establish a total dry film thickness as indicated or, if not indicated, as recommended by coating manufacturer.

3.4.4 Completed Work: Match approved samples for color, texture and coverage. Remove, refinish or repaint work not in compliance with specified requirements.

3.5 Clean-Up and Protection:

3.5.1 Clean-Up: During the progress of the work, remove from the site all discarded paint materials, rubbish, cans and rags at the end of each work day. Upon completion of painting work, clean window glass and other paint-spattered surfaces. Remove spattered paint by proper methods of washing and scraping, using care not to scratch or otherwise damage finished surface.

3.5.2 Protection: Protect other surfaces whether to be painted or not, against damage by painting and finishing work. Correct all damage by cleaning, repairing or replacing, and repainting, as acceptable to the Contracting Officer. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting operations.

3.5.3 At the completion of work of other trades, touch-up and restore all damaged or defaced painted surfaces.

4. MEASUREMENT AND PAYMENT: Payment will be made on a lump sum basis for all painting and related work, complete. Payment for the item will include the following:

4.1 Sealants.

4.2 Painting work.

5. QUALITY CONTROL

5.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

5.1.1 Preparation of surfaces.

5.1.2 Job conditions.

5.1.3 Number of coats, and dry film thickness.

5.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

DIVISION 12 - FURNISHINGS
DIVISION 12A
MATS

1. GENERAL

1.1 Description of Work: The work of this section consists of protective floor matting and retainer strips. The extent of floor matting work is shown on the drawings.

1.2 Submittals: The following items shall be submitted to the Contracting Officer for approval:

1.2.1 Samples:

- a. Matting: Minimum 6" x 6" samples of protective floor matting.
- b. Retainer Strips: Minimum 6" long samples of retainer strips.

1.2.2 Shop Drawings: Dimensioned shop drawings of each floor level, showing overall mat layout and sizes of individual sections.

2. PRODUCTS

2.1 Protective Matting:

2.1.1 Construction: 25/32" x 1-3/4" hardwood slats mounted on 3/8" high x 1/2" wide neoprene rubber runners.

- a. Provide uniform chamfer of approximately 1/8" at all top-surface corners of each slat.
- b. Spaces between slats shall be uniform and shall not exceed 3/8".
- c. Runners shall be grooved on the underside and attached to the wood with hot dipped galvanized nails.
- d. Runners shall be provided for mat widths (slat lengths) as follows, and shall be uniformly spaced:
 - (1) 3 runners for 24" through 36" mat width.
 - (2) 4 runners for 37" through 48" mat width.
 - (3) 5 runners for 49" through 54" mat width.

2.1.2 Layout:

- a. Slats shall run crosswise to the major flow of traffic.
- b. Mats shall be no wider than 48" except in extraordinary circum-

stances, and shall in no case exceed 54" in width.

c. Maximum mat length shall be approximately 72".

2.1.3 Fasteners: Provide manufacturer's standard end-to-end and side-to-side hooks for all matting sections on the cellar floor level.

2.1.4 Products offered by manufacturers to comply with the specified requirements include Cushion Walk Flexible Duckboards; Cactus Mat Manufacturing Co., South El Monte, California.

2.1.5 Retainer Strips shall be 3/4" quarter round hardwood moulding.

2.1.6 Nails shall be Fine Finish cut nails as manufactured by Tremont Nail Co., Wareham, Mass. Provide nails in sizes according to good practice.

3. EXECUTION

3.1 Install protection matting units in accordance with approved shop drawings.

3.2 Nail retainer strips to wood floor around entire perimeter of matting areas, using cut nails as specified. Cope and miter joints. Allow sufficient clearance for expansion and for removal of mats.

3.3 Eliminate rocking of units and offsets in the overall surface by attaching additional neoprene shims, as required, to the underside of the matting.

4. MEASUREMENT AND PAYMENT: This work will be measured on a square yard basis. Payment for protective floor matting work will be at the contract unit price per square yard for all matting work, complete and installed. Payment for the item will include the following:

4.1 Matting.

4.2 Retainer Strips

5. QUALITY CONTROL

5.1 The Contractor shall establish and maintain quality control procedures to assure compliance with contract requirements and shall maintain records of his quality control for all construction operations covered by this section, including but not limited to the following:

5.1.1 Installation in accordance with approved layout.

5.1.2 Stability of units and continuity of surface.

5.2 A copy of these records as well as the records of corrective action taken shall be furnished the Government as required in the Quality Control paragraph in the SPECIAL PROVISIONS.

GRUBER REST

DIVISION 12 - FURNISHINGS

SECTION 12B - MISC. FURNISHINGS

TO BE ISSUED
BY AMENDMENT

GRUBER REST

DIVISION 15 - MECHANICAL

SECTION 15A - PLUMBING
SECTION 15B - FIRE PROTECTION SYSTEM

TO BE ISSUED
BY AMENDMENT

GRUBER FEST

DIVISION 16 - ELECTRICAL

SECTION 16A - ELECTRICAL

TO BE ISSUED
BY AMENDMENT